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THE RISE OF AMERICAN ECONOMIC LIFE

Third Edition

CHARLES SCRIBNER'S SONS
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SCRIBNER'S HISTORICAL SERIES
Under the Editorship of
ARTHUR CECIL BINING

TO

MY MOTHER AND FATHER

Preface

This book is designed as a general introduction to American economic history. Its main objective is to present in a simple and direct style the story of the origin, growth and expansion of American economic life from its lowly beginnings to the highly complex economic organization of the present. Essential detail has been stressed to give emphasis to the main currents of American development, but unessential detail has been eliminated or subordinated. In some instances, where it has been found necessary, reference has been made to the social, diplomatic, or political background of an economic event or movement in order to give understanding to it and to avoid an interpretation that otherwise might be erroneous.

The general approach to this study is the evolutionary one, which is the natural approach. Within the framework of several periods, the topical treatment has been used. The stream of history, which although continuous and endless, has been broken down into periods for comprehension and convenience. The Revolution, the Civil War and the First World War are used to mark off periods because they so greatly affected aspects and phases of economic life. Much care has been devoted to organization, not only in the interest of simplicity but to aid the reader integrate the complex materials of history.

Within the brief scope of this volume, the major phases of American economic life are presented. Attention has been given especially to technological developments. Such changes affected not only industries but farming, transportation, banking, and other aspects of economic life, as well as social progress. But the basic factors that brought about the machine age of mass production are found in the changes in industrial life. For this reason, some stress has been laid on technological advances, which constitute the unifying thread in presenting the history of American economic institutions.

The increased interest in economic history during the past few decades has resulted in much research in the field. New facts have been uncovered and more accurate interpretations of economic development have been reached. Every attempt has been made to bring out the new viewpoints and to include the findings of recent research embodied in a vast amount of monographic material in the various branches of the subject. A limited amount of original research on the part of the author has been woven into the fabric of the work.

In the preparation of this volume, I have been favored with the counsel of a number of scholars who have offered suggestions for its improvement. It gives me pleasure to express my thanks to Dean R. F. Nichols, Professors A. P. Whitaker, J. M. Fogg, Jr., Leonidas Dodson, S. H. Patterson and E. B. Cale of the University of Pennsylvania; Professor L. H. Gipson of Lehigh University; Professor J. A. Barnes of Temple University; President P. H. Giddens of Hamline University; and to Dr. A. E. Martin and Dr. L. J. Cappon. I wish especially to thank Professors C. P. Nettels and Professor P. W. Gates of Cornell University for their constructive criticisms. I am also grateful to Mr. W. J. Bining, Aliquippa, Pennsylvania, and to my wife Inez Petry Bining for their assistance.

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The Colonial Era

CHAPTER I

The Economic Awakening of Medieval Europe

The Middle Ages

The roots of American economic life extend deeply into that period in the history of the world usually known as the Middle Ages. It is true that these fibrous roots may be traced much deeper — into the soil of ancient empires whose cultures rose to great heights only to decline and fade into the twilight of obscurity. But it was in the latter part of the medieval era when Europe was awakening to increased activities, and the cross-currents of European civilization were becoming more complex, that ideas and patterns took shape which were to provide the background for a new order of society on the virgin continent of America. Not only were the political and social concepts of a changing Europe transplanted, but the earliest economic activities were patterned after those of the Old World. This culture was to be modified and changed in many ways by a new environment, the rigors of pioneering, the mingling of various racial groups, and the alchemy of rapid growth and expansion. In the course of time, a new society — distinctly American — took form.

Since the story of America begins in Europe, it is necessary to take a glance at medieval society, whose customs and concepts had an influence on many phases of early American life. With the collapse of the great structure of Roman material civilization and the destruction of universal law and order, an inferior form of society arose in Europe. Attacks from without and disintegration from within had put an end to the great Roman Empire. In the West, culture in all its aspects crumbled, although for centuries Byzantium in the East retained an important civilization and many of Rome's traditions. But gone was the vast military machine whose well-disciplined troops had successfully sought world conquest; gone was protection and security to person and property afforded by a strong government; gone was the bond of unity such as the world had never known before; and gone was Roman peace, which, although brief, had given mankind a fleeting vision of a brighter and happier world. The old commercial prosperity disappeared as commerce and industry declined. The western seas were once more infested with pirates. The great roads fell into decay and were plagued with robbers and brigands. Urban life disintegrated, and, apart from the cities of the Eastern Empire, only Rome and a few other centers continued to exist as cities, though with greatly diminished populations. Out of the turbulence of long years of disorder, a different type of society and a new form of government emerged in Western Europe.

From Quennells' "A History of Everyday Things in England"

AGRICULTURE IN THE MIDDLE AGES

Medieval society must be considered in terms of suzerains and vassals, of barons and lesser nobles of different ranks, of tenants, freemen, and a great body of peasants or serfs. Then too, the procession of clergy — archbishops, bishops, abbots, and priests — as well as those pious individuals in the various monastic orders who took the fundamental vows of poverty, chastity and obedience, must be included among the actors in the medieval pageant. Europe was shattered into thousands of estates and manors, ruled over by nobles who consumed most of their energies in continual petty warfare. Clustered in villages, protected by the castle or stronghold of the overlord, were the hovels of the miserable serfs, who spent their days in providing for the needs of their superiors, taking comfort in the thought and hope of a better life beyond the grave. The Church, as it grew in power, became a unifying influence, and its abbeys and monasteries preserved the smouldering embers of learning, scholarship and scientific endeavor that remained of the heritage of the past.

Feudalism grew up because there was no settled government to protect life and property and to regulate the dealings of men. In its principles and usages, it was a system of polity based on the relations of men to one another rather than on the obedience of men to government and law. It centered in the relationship of the lord to the vassal in connection with the holding of land in fee. It developed many practices and customs, the most important of which were fealty, homage, personal services, wardship, reliefs, aids, escheat, forfeiture, and finally chivalry. Feudalism, based almost exclusively on agriculture, gradually weakened with the passing of the medieval period. Among the circumstances that brought about its decline were the revival of towns and cities, the gradual expansion of economic life, the rise of a middle class, the Crusades, the change in the purpose and nature of warfare, the beginning of modern states, the emergence of monarchy and autocracy, and the colonization of distant lands. Although feudalism finally died, many of its concepts and customs remained well into the modern period, and like vestigial remains in the human body, a few, such as hereditary titles and great landed estates, still survive and persist as reminders of a bygone age.

The Revival of Town Life

By the eleventh century, as feudalism was reaching its height, certain forces became manifest that in the course of time were to change the entire complexion of European society. The feudal world seemed to be starting a process of organization. Anarchy gradually grew less violent in degree and extent; many nobles attempted to exploit their holdings economically rather than continue to risk the perils involved in seizing the lands and possessions of others; agricultural surpluses from the curiously arranged strips and fields of the manors sought outlets; increasingly men exchanged commodities; new markets were opened; and commercial relations developed between the manors and the reviving towns, and among the towns themselves. Thus, a revival of labor and production in many new forms began to stir Europe, resulting once again in the rise of town and city life. This marked the beginning of a new commercial era and the threshold of another epoch in the history of mankind.

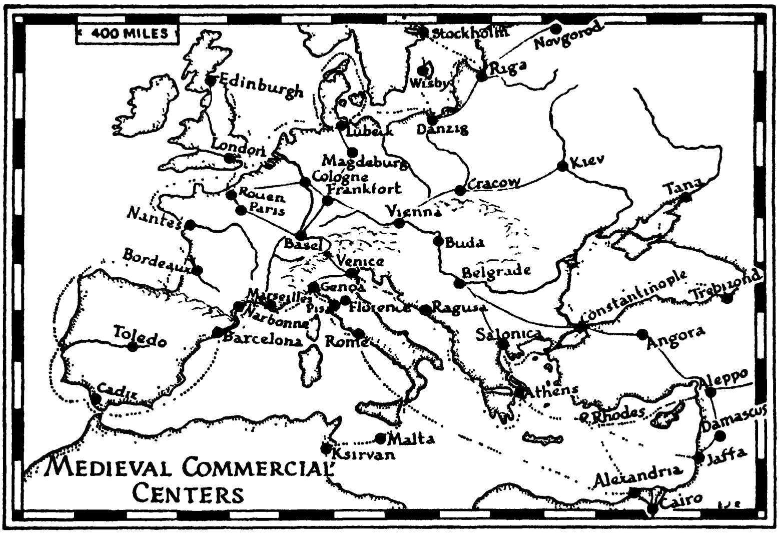
The first cities and towns to show renewed activity were on the shores of the Mediterranean, in Italy and Provence. Commerce, trade, and urban life had never entirely disappeared at any time during the Middle Ages. The expanding Church required stone, marble, mosaics, and stained-glass windows for its towering cathedrals; its activities kept town life alive. For its decorations and reliquaries, the Church also sought gold, silver, precious stones, and tapestries, much of which came from the Byzantine Empire and even from the far-off Orient.

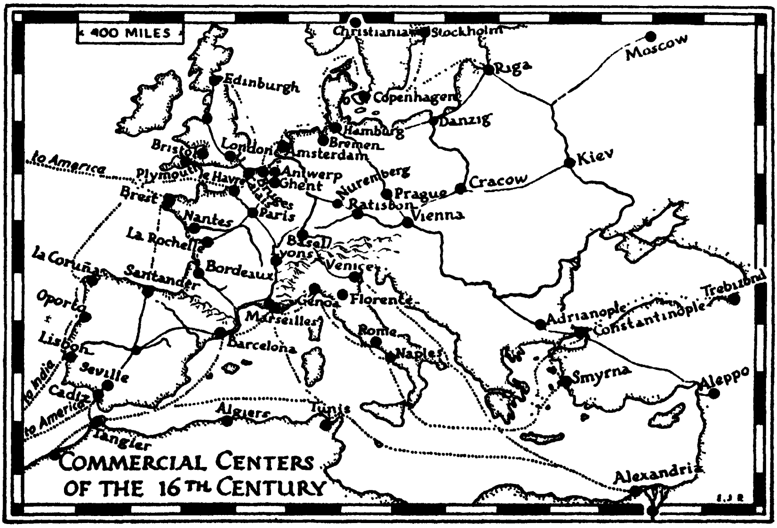
Many a great feudal noble, also, was able to secure coveted articles through the instrumentality of the decadent cities, and during the period of greatest disorganization, there remained a semblance of commerce which from time to time ebbed and flowed like the tides, never reaching great heights because of the hazards and perils of the times.

The older towns, such as Naples, Ravenna, Florence, Milan, Amalfi, Pisa, Genoa, and the one destined to become the greatest of all — Venice, began to grow and prosper. Several became great city-states. New towns that owed their origin to medieval conditions arose. Many grew up under the shadowy protection of a monastery or castle. Others began as villages at the junction of roads, the headwaters of rivers, or where main routes of travel converged. Locations suited to trade became market centers. Towns like Bruges, Cologne, Ghent and Nuremberg began to thrive as unstable conditions slowly gave way to more peaceful times.

The towns that arose in later medieval times, and the older ones that took on new life as feudalism weakened, varied somewhat in appearance and organization, but all had certain similarities. They had walls of earth or stone. Each had its watch-towers to guard it by day and by night. Bells sounded alarms of danger from enemies without and fires within. Streets were narrow, crooked, unpaved, and in most cases were stenching with filth and refuse distributed by the inhabitants and by domestic animals that roamed through them. Buildings varied from great structures to hovels. In the town hall, the charter, wrested by one of various methods from the king or a great baron, set forth the privileges of the town and the degree to which it was free. In the larger towns or cities, magnificent cathedrals with spires and steeples pointing skyward denoted the religious aspiration of the people as well as the skill of architects, sculptors, masons and other workers.

Within the towns the guilds developed and held control in their respective spheres. They were associations of men with kindred pursuits or common interests formed for mutual aid and protection, and included religious, commercial and industrial groups. The chief aim of the merchant guilds was to secure a monopoly of the trade of the town and its neighborhood, and to protect its members from the competition of strangers. The primary purpose of the craft guilds was to secure complete control of the production of the articles of a particular craft. They regulated the way goods were produced, the hours and wages of the craftsmen, the price of the commodities, and enforced rules in regard to learning the trade. The guilds included three groups: apprentices, journeymen, and masters. The members of the various craft guilds usually lived together in one section of the town. Many surnames, such as Smith, Weaver, Cooper, Taylor, and Currier, denoting the original occupation of the workers, have come down from the crafts of the Middle Ages. The early guilds often formed a bulwark against the oppression of the nobility and thus played an important part in securing municipal and civil liberty.





In spite of its walls, the medieval town was not cut off from the surrounding countryside. Peasants, continuing to cultivate their fields and pastures, moved close to it for protection and for social life. Towns that grew out of villages retained around them their old common fields, strips, and pastures. Villagers and others visited the markets and fairs, trading under the conditions and regulations laid down by the guilds. In spite of the guilds, certain questionable practices arose. Among commercial terms relating to them were forestalling (preventing normal trading by buying or diverting goods before they got to the markets or fairs), engrossing (monopolizing, controlling or cornering the market), and regrating (buying to sell again at a profit). At the pie powder courts (from *pied poudré* or "dusty foot" courts) the law merchant — legal rules applied to cases arising in trade transactions — was quickly administered in cases of dispute. The commercial, industrial, and social aspects of town life, as they unfolded, were important factors in the economic awakening of Europe.

The new activities in manufacture and exchange produced a class of successful townsmen, usually called the bourgeois or middle class. Some came from the lower orders of nobility; others were freemen; and some were emancipated or escaped serfs who became free, according to custom and law, if they could maintain their freedom for a year and a day. Those townsmen who were able to attain wealth and power above that of their fellows became the governing class. They were the masters of the guilds, the prosperous merchants, and the officials. Having made use of the lower classes to destroy the control of the feudal lords, they denied them a share in government. Thus, a medieval town was in no way democratic, for government was vested in the hands of a few. New class distinctions arose between the bourgeois (the prosperous groups) and the proletariat (the lowest groups), which have been bequeathed to modern times. Class hatreds developed and serious revolts occurred from time to time. Having fought their way from serfdom, the masses fell prey to the domination of the rising and prosperous middle class. It was this influential group that laid the foundations for the commercial and industrial expansion which in time was to affect all parts of the globe.

The Economic Importance of the Crusades

Throughout the Middle Ages much value was attached to pilgrimages to the shrines of saints. The long journey from Western Europe to the Holy Land was the greatest religious service or duty one could undertake. It was attempted by nobles and others because of deep religious feeling or in the hope of securing pardon for sins — often for both reasons. The Mohammedans, who controlled much of the Near East, did not object to the Christian pilgrims, for they exploited them in this profitable tourist trade. But by the eleventh century, the Arab empire was falling into decay and a number of separate kingdoms were forming within it. On these the barbarous Turks descended, wresting control and power from the Arabs. The Crusades began as a religious war to recover the Holy Places from the fierce Seljuk Turks, who, by becoming converts to Islam, made easier their conquest of Asia Minor. With the sign of the cross sewed on their jackets and the words, " 'Tis the will of God," on their lips, the crusaders turned eastward for almost two centuries (1096–1270). In addition to the religious motive, many set out in the hope of securing new principalities for themselves; in the expectation of obtaining riches; or from a thirst for adventure. The story of the movement is a strange blend of religious fanaticism, greed, and recklessness.

While the Crusades cost Europe a million lives and in general failed in their objectives, except for the control of Jerusalem for about a hundred years, they constituted another blow to the feudal system. Rich barons were compelled to sell their possessions in order to raise money to equip troops and to transport them to the Syrian coast. The personal power of many princes who stayed home was increased as a result, especially through the reversion and seizure of feudal holdings which became vacant. The failure of many to return meant freedom for the serfs who were able to flee to the towns, and also resulted in the extension of the power and influence of the ruling classes in the towns. The Crusades did much to bring in the new commercial era, as well as to increase the power and authority of the Church and the Papacy.

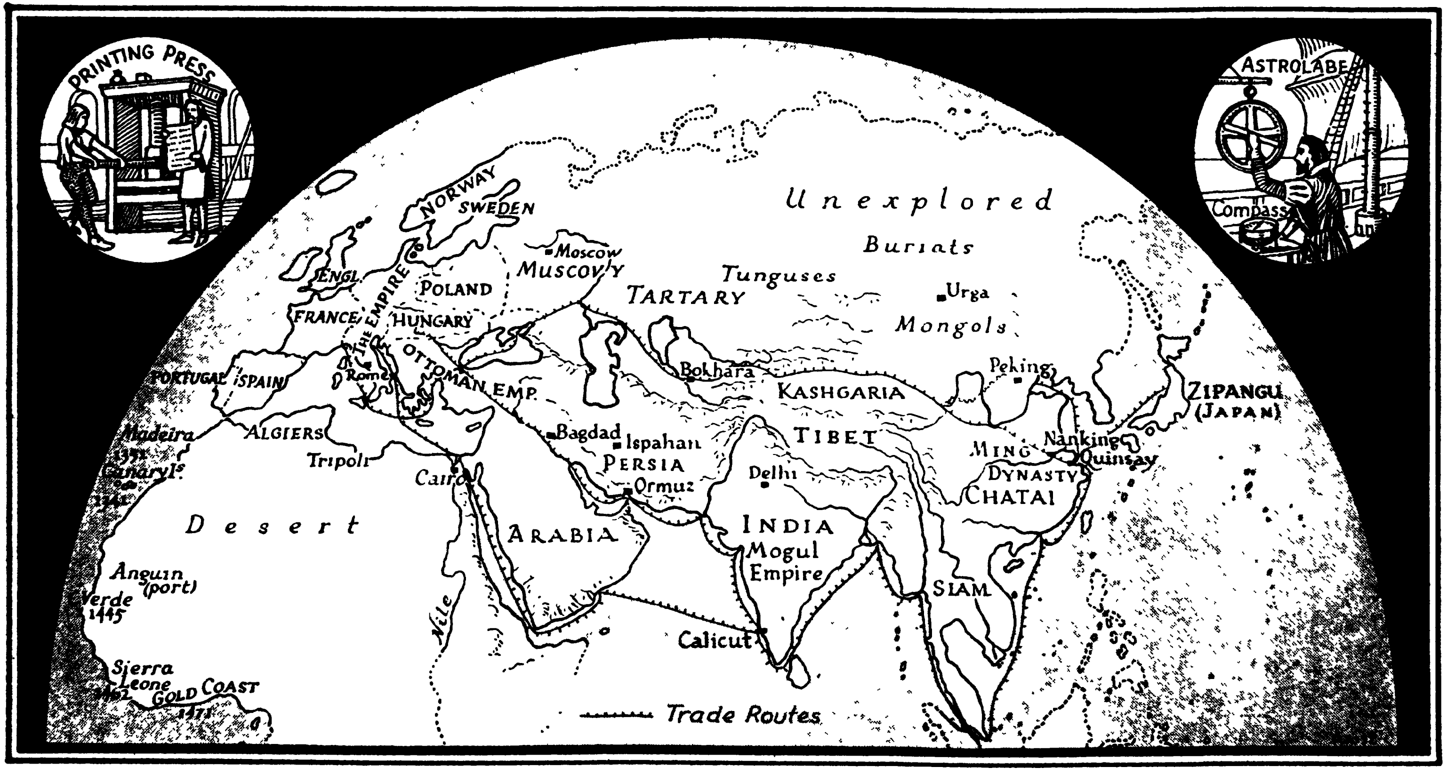
The crusaders traveled by land and sea. Their activities benefited the rising Italian commercial cities. Venice, Genoa, Pisa, Barcelona, Marseilles, and others made increasing contacts with Constantinople (Byzantium), which as an independent state had stood guard throughout the Middle Ages against the inroads of the barbarians and had preserved from destruction much of the best in civilization. The rivalry between the Italian cities, especially Venice and Genoa, for trade with Constantinople and the southeastern Mediterranean was woven into the warp and woof of the Crusades.

The economic awakening of Europe had begun more than a century before the Crusades. That movement, however, stimulated commerce by creating new markets in the East for European products — mostly raw materials, especially metals and minerals — and by extending into the West the use of oriental products, such as sugar, spices, tapestries, dyestuffs, fragrant woods, perfumes, cotton, silk, calicoes, muslins, satins, velvets, and other products. The crusaders were amazed at the high culture of the Saracens with whom they came in contact. Those fortunate enough to get back home carried with them desires for the luxuries of the East and a determination to get them. At this time in Western Europe, Italy was foremost in the production of luxury goods, but Italian arts and crafts were inferior in many ways to those of the Levant and the more distant Orient. As a result of the Crusades, the increased trade and commerce brought many foreign countries into more intimate relations with each other. In consequence, much progress was made in transportation, especially in navigation and shipbuilding. The Italian cities acquired wealth and attained vast commercial importance. Many men became curious about distant parts of the East. Travelers, like the great Venetian, Marco Polo, visited China and other eastern countries. In addition to important economic results, the Crusades also influenced the culture of Europe profoundly, although Arabian culture entered Europe in other ways as well, notably through Spain and Sicily.

The Expansion of Commerce

Trade routes became more complex as commerce expanded. The Levant once more was the crossroads of civilization. That eastern end of the Mediterranean marked the routes of conquest and martyrdom of generations of warriors and traders. From this region early Phoenician merchants had extended their commercial imperialism; vast Roman legions trod these shores as they turned eastward for conquest; here the crusaders sought the protection of God for their deeds of piety and cruelty; and in this active but troubled area Venetians, Genoese, and other Italian traders built trading posts, carried on diplomatic intrigues, and made deals with the Arabs.

From the Far East to the Levant, goods were brought by the Arabs over three main routes. Merchandise was carried by sea from eastern Asia to Ormuz, to the north end of the Persian Gulf, thence up the ancient Tigris valley to fabulous Bagdad. From this city, the center of Mohammedan wealth and learning, several caravan routes branched out, north to Tabriz, westward to Antioch, Damascus or Jaffa. A northern land route, across mountain, valley, plain, and desert led from inland China and India to Bokhara and from there several routes met from the West, one branching out into the Caspian, up the Volga to central Russia and the Baltic, while another continued west to Trebizond on the Black Sea. The third or southern route was an all-water way from India across the Indian Ocean and the Arabian Sea to the Red Sea, where goods were landed at Berenice on the African coast and transported by caravan to the Nile, thence down that river to



THE KNOWN WORLD OF THE FIFTEENTH CENTURY WITH EASTERN TRADE ROUTES the great metropolis of Alexandria or to other seaports on the Mediterranean.

From the cities of the Levant, the Italian traders had a monopoly over the distribution of Eastern goods into Europe, for they controlled the Mediterranean. This great sea remained the center of European commerce until the latter part of the fifteenth century, when triumphant Venice, the Queen of the Adriatic, with her oligarchy, fleets, colonies, and commercial control, after reaching the height of vigor and prosperity, gradually declined. The age of discovery marked the doom of Italian commercial monopoly as the supremacy and power of the Italian cities were seized by the rising national states on the western coast of Europe.

During the period when the Italian merchants dominated the expanding commercial scene, it was natural that inter-regional trade should greatly increase as town life expanded and the demand for exotic luxuries grew. European trade routes, many of them ages old, saw increasing activity. Over the passes of the Alps, along the Rhone River, and through the Strait of Gibraltar to northern countries, prosperous trading was carried on by many different peoples. Associations of individuals, groups, and towns gave impetus to commercial activities. Such, for example, were the Merchants of the Staple comprising an association of Englishmen for the export of English wool and other raw materials; and the Merchant Adventurers constituting a company of English merchants dealing in cloth and other commodities, especially with Germany and the Low Countries. The outstanding association of towns was the famous Hanseatic League of North Germany whose commercial activities were carried on with England, the Netherlands, Norway, Denmark, Sweden, and Russia. This league served in a sense as a government and waged wars, made treaties with foreign states, taxed its members, and took a leading part in the affairs of northern Europe until about 1500. Many individual merchants or mercantile houses also became wealthy and powerful. The Bardi and Medici of Florence who rose to heights of magnificence through mercantile and banking pursuits; Jacques Coeur, the merchant-prince of Bourges, whose dazzling career brought him into the royal favor of Charles VII, but whose wealth led to his ruin at the hands of that fickle and covetous monarch; and the generations of the Fuggers of Augsburg, who had commercial and financial connections all over Europe, are examples of great individual merchants of the period. Although the Italian cities held a monopoly of trade on the Mediterranean, inter-regional trade was carried on by the peoples of all the important countries of Europe.

The Origins of Modern Capitalism

An early writer classified medieval society into three groups — the prayers, the fighters, and the workers. The latter were chiefly the miserable serfs whose toil largely supported the rest of society. By the thirteenth century, the new middle class had arisen in the towns and was increasing rapidly. Before the fifteenth century, wealthy middle-class families, such as the Medici in Italy and the Fuggers in Germany, were becoming important and influential. They possessed an abundance of floating wealth and became the financiers of commercial undertakings, of banking projects, of industrial enterprises, of rulers, and of nations. In the accumulations of money, the development of new methods to obtain profits, and the growth of the profit-making spirit, may be found the origins of modern capitalism.

The medieval way of life was essentially religious and religion colored economic ideas as well as political and social thought. In the strictest view, profits of any sort were sinful. According to the Church, one risked his soul in such gainful transactions, for it might lead to avarice or greed. The Church strove to enforce its prohibition of usury by the denial of communion, the refusal of Christian burial, and in other ways. Its courts, as well as those of the rising towns and states, also tried to punish such offenders by imposing heavy fines. But as early as the thirteenth century, the Church's stand on usury and profit-seeking was beginning to weaken. Dante, Italy's most famous poet, gave the money-lenders of Cahors a particular place in hell, but a Pope called them "peculiar sons of the Church." In the centuries that followed, preachers, teachers and writers began to justify usury and profits. At the same time, the guilds, which made regulations for the benefit of all their members, gradually began to lose some of their power. These factors slowly but surely brought about the acceptance of the capitalist spirit.

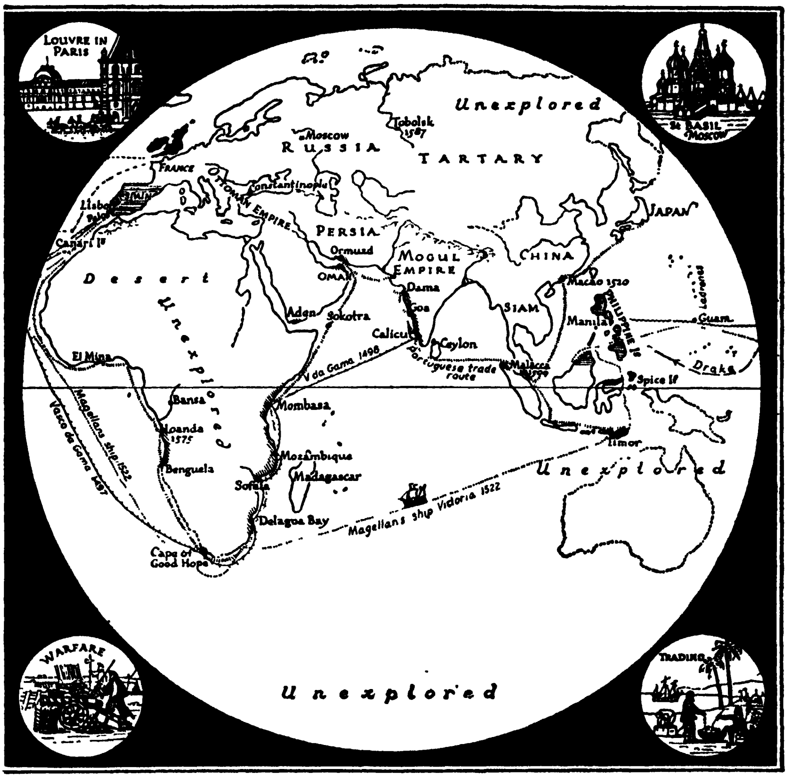
The accumulation of early capital goes back to the eleventh century. At that time agriculture was still the chief form of economic life. It required the use of little or no money and was carried on not for profit but for the subsistence of the inhabitants of each manor or estate. But with the rise of town life once again, money slowly came into circulation and tended to accumulate in the hands of aggressive or fortunate individuals. In some cases, profits were obtained from the existence of agricultural surpluses, which were sold at markets and fairs. Important, also, was the growing use of money for ever-increasing taxes and dues, collected by nobles, kings, and the Church. Profits in rising commerce and the output of new gold and silver mines in

Europe also enabled merchants to amass wealth. The economic awakening of Europe brought increases in rents of lands and houses, with resulting stores of capital. Money-lending and financial undertakings were means of building fortunes. Wealth also accumulated as export industries developed, such as the Florentine and Flemish woolen manufactures, the silk industries of Italian cities, and the metalware production of Belgium and the Rhineland. From various sources, therefore, medieval accumulations of money of simple origin provided the basis for capital. Fully developed capitalism, however, did not appear until after the industrial revolution of the eighteenth century. By that time broad markets, a highly developed money and credit economy, and the expansion of the wage system, as well as strict private ownership of the means of production and exchange, became the outstanding aspects of modern capitalism.

Even in the late medieval period, however, infant capitalism accelerated the growth of national states, especially as the rising nations came to realize the importance of economic matters. They began to develop more intense trade rivalries and, finally, a scramble for colonies. Capital was necessary if a country was to expand economically. The origins of mercantilism, which dominated Europe for several centuries, can be found in this period. Mercantilism may be defined as a system of economic nationalism by which a state put into practice methods and means of economic control to secure unity, power, and wealth. The striking political developments in the rise of national states were paralleled by economic ideas and practices. It should be emphasized that mercantilism, as it developed, varied in its operations and details in each country.

Ocean Trade Routes

From the beginnings of the Crusades, European trade and exploration had taken an eastern direction — toward the lands of the rising sun. As commerce was reaching a new height in the thirteenth century, a terrible horde of invaders from central Asia — the Mongols under Genghis Khan — swept down and broke the power of the Seljuk Turks. When the tide of Mongol invasion rolled back, Asia Minor was divided into a number of small districts, each ruled by a petty chief. One of these was Othman, the leader of a band of Turks from Central Asia. His followers became known as Ottomans. The warlike Ottoman Turks conquered other groups and extended their conquests. For a century and a half, they possessed Asia Minor, the coasts of the Black Sea, the Aegean Islands, and in 1453 Constantinople itself fell to them. Caring little for trade, the raiders lived largely by plunder. The Italian cities, especially Venice, suffered greatly by these conquests and sought new routes of commerce southeastward from Asia Minor. But here, too, the marauders spread until by 1517 they had occupied Syria and Egypt, checking the flow of goods east and west through their raids and depredations and imposing heavy duties, but not entirely closing the trade routes.



SEA-ROUTES, EASTERN HEMISPHERE, 1600

While there were many reasons for the decline of the Italian cities, the disruption of trade by the Turks was an important one. At the time that Turks and Mongols controlled eastern Europe, many Europeans began to turn their attention in other directions. As a result of trying to get to Asia in a round-about manner, either by way of a southern and eastern route or directly westward, they accidentally found themselves on the portals of a new world, which became known as America. As the Italian cities declined, Portugal and Spain took the lead in the new age of discovery. Venice held her own in the Mediterranean for a time, but that great power also went down in defeat. The exhaustion of Italian oak forests and revolutionary changes in rigging and in armament that confronted Venice in the competition with the rising western nations were also partly responsible for the decline of Venetian commerce.[1]

Portugal, favored by her position on the Atlantic, possessed a mountainous country not well suited for agriculture; with Spanish enemies on land, and desirous of competing for European trade, she was the first to engage in long sea expeditions. Her harbors had become shelter-ports for the growing commerce between the Mediterranean and the north of Europe. Learning from the proficient Italian seamen who had introduced the mariner's compass into Europe in the thirteenth century, using the astrolabe for determining a ship's position at sea, developing the art of making sailing charts and maps, and introducing many improvements in sailing, Portugal sent her mariners down the African coast seeking commerce and trade. After the middle of the fifteenth century, each captain tried to push farther south than his predecessor. Every fleet carried the banner of Christianity to the islands off the African coast and in the trade that developed, strangely enough, brought back Negro slaves, reintroducing into Europe slavery which had come to an end with Rome's downfall.

After Portuguese sailors had crossed the Equator, they discovered that the north star disappeared and that a southern constellation of stars appeared. New charts of the sky had to be devised and much superstition about unknown areas had to be overcome. Finally, in 1486, Bartholomew Diaz rounded the Cape of Storms and even sailed a few hundred miles beyond; but it was not until ten years later that this point, re-named the Cape of Good Hope, was not only rounded, but the adventurous Vasco da Gama reached the coveted land of India. Two and a half years later, after much trouble with the native Mohammedans whom he found there, he returned home with a cargo worth sixty times what his expedition cost. The king of Portugal, after knighting the victorious explorer, assumed for himself the title "Lord of the Conquest, Navigation, and Commerce of Ethiopia, Arabia, Persia and China." The discovery of the new route to the Indies was a decisive blow to Venice and the other declining Italian cities. Spain soon followed Portugal in sending explorers to distant parts of the world. Commerce and sea-faring were no longer confined to the Mediterranean as mariners sailed eastward and westward. This change from the Mediterranean as the chief scene of commerce to the Seven Seas, together with the tremendous economic results that followed, has been called the commercial revolution.

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[1] F. C. Lane, *Venetian Ships and Shipbuilders of the Renaissance* (Baltimore, 1934), pp. 217 ff.

The Portuguese Empire

A long line of explorers and discoverers built Portugal's commercial empire. It was based on a monopoly of trade in the East Indies and parts of India. The spice trade to Europe, controlled heretofore in the Mediterranean largely by Venice, now passed to her rising competitor, and the old monopolies of the Italian cities over all types of Eastern goods were broken. Trade was also extended to parts of China and Japan. The Portuguese established a colonial and commercial empire which embraced the western and eastern coasts of Africa from Guinea to the Red Sea and extended along the shores of southern and eastern Asia to China. This great expanse of territory was linked by chains of fortresses and factories. In the New World, Brazil was claimed by Portuguese explorers and a profitable trade in dyewood and other products of that region developed as colonization was encouraged. For a time, Lisbon, the capital of Portugal, became the center of the world's commerce.

The Portuguese Empire was a war-like one, ruled over by viceroys, admirals and generals, who delighted to fight the "infidel" and despoil the "heathen." At its height, it boasted of an area containing thirty-two foreign kingdoms and 400 fortresses, but the home government exercised little control over these far-off officials. This great empire had but a brief existence. Incompetent monarchs and corrupt governments led to its decline. Within a century, Portugal had come under the power of Spain and a generation later most of her possessions passed to the Dutch.

The Spanish Empire in the New World

While Portuguese explorers were seeking distant lands, Spain became active. After offering his services to the king of England and the monarch of Portugal without result, the Italian navigator, Cristobal Colon, whom we call Christopher Columbus, sailed westward under the flags of a united Spain with the financial aid and the blessing of Ferdinand and Isabella. Obstinate and ambitious, he had waited for years until the conditions he laid down should be accepted. Among these, his demands that he be made viceroy of all lands he discovered and that he be granted one-tenth of all their produce were finally accepted with some reluctance. On August 3, 1492, his epochal first voyage began at Palos as the three little caravels slowly sailed out of the harbor.

Whether Columbus left Spain to discover a new route to India and Cathay, or to find islands and lands which could be Christianized and bring honor and wealth to the Spanish monarchs and to himself, we do not know. In spite of a mutinous crew, the failure of the compass when the line of "no variation" was crossed, and gross miscalculations as to distance, the expedition reached San Salvador (Watling Island in the Bahamas) on October 12, 1492. Clad in armor covered with a cloak of scarlet, Columbus was rowed to shore and unfurled the royal banners of Aragon and Castile. He found the peaceful inhabitants in a lowly stage of culture, for they pointed their javelins with fishbones and their darts with the teeth of fish. They brought to the explorers parrots, cotton threads in balls, and darts, for which they received in exchange red caps, small bells, strings of glass beads, and other trinkets. Columbus seemed sure that he was near the Indies. In his travels to the various islands he sought to verify this belief. He had with him an interpreter "who had been a Jew, knowing Hebrew, Chaldee, and even some Arabic," and together they tried to persuade themselves when they heard the natives talk of Cuba that Cipango (Japan) was meant. He refused to believe that he had not reached the Orient, an attitude that was shared by the Spanish rulers and officials for many years. On the return voyage, marked by mistakes and catastrophes entailing the loss of two vessels, he reached Portugal and then arrived in Spain, when he experienced the moments of his greatest glory. He was now Lord Don Cristobal Colon, Grand Admiral of the Ocean Sea.

In his later voyages, Columbus sought feverishly for gold and other riches on many islands of the West Indies as well as for a passage to the Orient. The fourth voyage, begun in 1502, was a pathetic attempt to remove the ignominy that had fallen upon him. On this trip, Columbus and his men, with their rotting ships, were marooned at Jamaica, until, after horrible hardships and mutiny, they were finally rescued and reached Spain toward the end of 1504. Two years later, after a life of trials and vicissitudes, the great navigator died. Columbus was not the first European to come to these shores. But all his forerunners failed to leave records which could be pieced together to form an intelligent picture of their activities. It was Columbus who led the way in bringing to the Western Hemisphere permanent occupation by the Christian faith and by European civilization.

Spain lost little time in exploiting the resources of the New World. The Spaniards found that the Incas of Peru, the Mayas of Central America, and the Aztecs of Mexico were well advanced in the arts of civilization. Although unskilled in the use of firearms and steel weapons, certain types of handicrafts and trades were relatively well developed. While agriculture was the main occupation of the natives of the southern lands, there was some specialization in industry and various regions became noted for certain products. Markets under government supervision were held regularly in specified places. Silver, lead and tin were mined at Tasco and copper was taken from the mountain of Zacotollan. Gold, found in many places near the surface of the earth, in the beds of rivers and even in mines, was cast into bars. Vessels of gold and silver were made and often carved with great skill as can be attested by recent finds in ruined and moldering temples. The two Indian kingdoms, Mexico and Peru, conquered by Cortez and Pizarro, respectively, were the richest and most important provinces of Spain in the New World, and like all the Spanish provinces in America were administered by viceroys.

Under the rule of the Spaniards, mining of precious metals continued and European methods of securing the riches were adopted. Of the thousands of mines which were opened and exploited, many became famous. Indian and Negro workers produced great wealth for their masters. Vast quantities of gold and silver were sent to Spain, which were wasted by the Spanish monarchs in wars and politics. The great increase in the supply of gold and silver in Europe speeded up the change from a barter to a money economy and brought about a startling rise in prices. Spanish America fell prey to plunder first; then trade and colonization developed. A land system was established which included peonage. The conquistadores vigorously explored much of America and made known to the world the flora, fauna, tribes, and geography of a large part of the American hemisphere.

Spain made contributions to the New World in the form of her distinctive culture. Mexico City and Lima became the capitals and the centers from which Spanish-American civilization radiated. In these cities were the palaces of the viceroys and archbishops, cathedrals, and the first universities in America. In the wake of administrators and clergy, Spain sent to her overseas empire many craftsmen, artists, and architects, who taught the Indian workers to build splendid churches, monasteries and homes of Spanish design. Teachers brought across the ocean the learning of the Old World, and Spanish customs as well as language were established wherever there was a settlement. The *fiestas* of the Church and of patron saints were celebrated and also Indian ceremonies. From the beginning there was intermarriage between the Spaniards and the Indians so that in time their offspring of mixed blood, called *mestizos,* made up a large part of the population.

Throughout the history of Spanish America the Church was a great civilizing and inspiring influence. Missionaries and priests accompanied soldiers on expeditions of conquest to save the souls of those who were often plundered and enslaved. After Spanish culture was well established in Mexico and Peru, these missionaries pushed to the outposts of Spanish settlement. They were not afraid of manual work, for ancient buildings in northern Mexico and California still stand as a record to their genius, labor, and devotion. Out of homesick memories of great churches and monasteries of the homeland they designed mission houses with thick walls and beautiful bell-towers and built them with the help of their Indian charges.

Great estates, called *haciendas,* were established in Spain's American colonies. The master, overseers, managers and Indian workers lived together in self-sufficing communities, frequently many miles from any town. On these large plantations corn was grown and also wheat, rice, and sugar-cane. Groves of oranges, lemons, and other semi-tropical fruits flourished. Later, coffee trees brought to Martinique in the West Indies by the French were transplanted in Central and South America by the Spanish and the Portuguese. Great coffee and cacao plantations brought wealth to their owners. Cattle were also raised on huge ranches. The home government encouraged agricultural development in the colonies, but was chiefly interested in the precious metals which were used for the gain and glory of Spain.

Several times a year the galleons sailed for Spain from Vera Cruz in Mexico and from Nombre de Dios or Porto Bello on the isthmus of Panama. Gold and silver were taken by ship from Peru to Panama and then carried on the backs of slaves or mules through jungles to the port of shipment. Spanish commercial policy was highly restrictive and trade was limited to a group of select merchants. From the seat of government in Spain, all the trade of the empire was regulated.

Colonial New Spain's farthest outpost was the Philippines. From 1565 to 1815, the Manila galleon plied its way annually from Acapulco, Mexico, to Manila, returning with Oriental goods to enrich the life of Spanish America. To Manila harbor came Far Eastern traders, largely Chinese, but also Japanese, Portuguese and others. Here they sold their silks, spices, porcelains, and other wares to Spanish merchants who sent part of them on the long and perilous trip to Mexico. On the journeys across the Pacific, occasional conflicts occurred with the Dutch and English for the domination of the region or more often for booty. Drake, Cavendish, Dampier, and Rogers sought to capture the richest of all prizes ever sought by buccaneers — the Manila galleon. These voyages made and lost the fortune of many a Spanish grandee of Manila, but the commerce did not expand much, for it was carried on against the background of the restricted Spanish colonial and economic policy.

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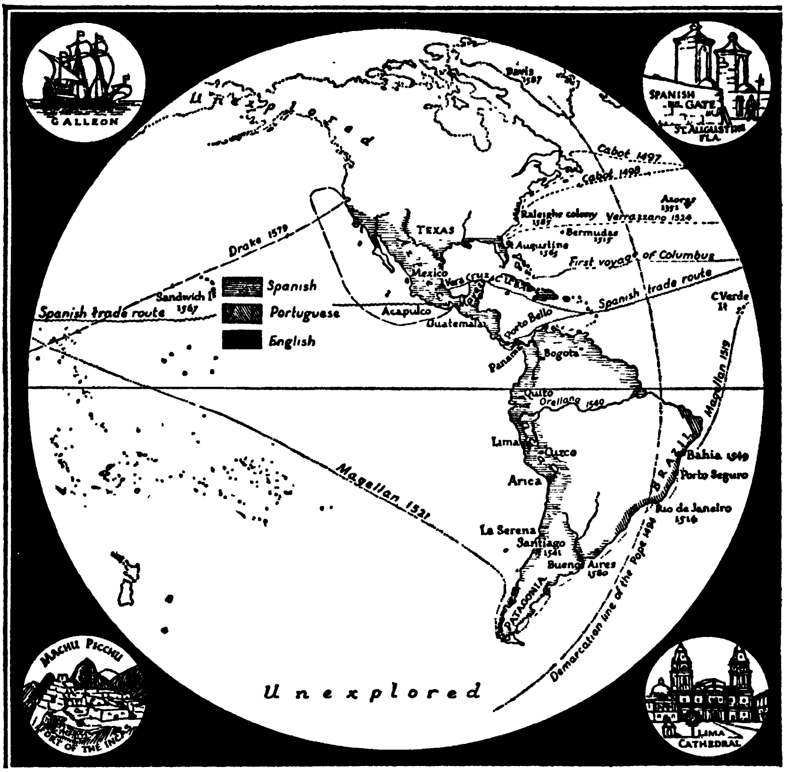
During the Spanish settlement of America the question of the sphericity of the world was settled in one of the most amazing journeys on record. Five antiquated, but well-calked and well-repaired vessels under the command of Magellan, a Portuguese in the service of Spain, left Seville in 1519, seeking a new way to the Far East. The largest ship, the *San Antonia* had a displacement of only 120 tons, but the mariners looked forward to a long voyage as is evident by the large stores of sea biscuit, cheeses, anchovies, honey, raisins and wines as well as the seven cows that they took along. In spite of this, the crew was driven to cook and eat the leather housings of the riggings and the voyage was fraught with peril including mutiny.



THE WESTERN HEMISPHERE IN 1600

After poking into the La Plata estuary, wintering in the desolate bay of San Julian, and sailing through the strait that now bears his name, Magellan courageously pushed across the Pacific. His men who had been lucky enough to live through the terrors of the voyage were walking skeletons when they landed on the Philippines, but Magellan knew what he had accomplished when he discovered islanders speaking the Malay tongue. While exploring the islands, the great navigator took sides in a petty and unnecessary skirmish between natives and lost his life. In September, 1522, one vessel instead of five, and eighteen men of the original 265 got back to Cadiz. The globe had been circumnavigated. It was proved that the westward route to the wealth of the Indies lay across the Pacific which in itself was a voyage covering almost half the globe. The money, power, and prestige that Magellan had looked forward to on his return had been denied him through his tragic death. The merchants who financed the voyage made a profit over and above their investment and the loss of their ships, from the spices brought home in the eighty-five ton *Victoria*.

France and the New World

French fishermen visited the Grand Banks off Newfoundland as early as 1504 and within a century they had built up an industry there and in the Gulf of St. Lawrence that employed hundreds of vessels annually. Long before the close of the century the French, in connection with their fisheries, carried on barter for furs with the Indians. In the 1580's merchants of St. Malo used some of their vessels for the fur trade alone and made large profits. Keen competition followed. Privileged companies were organized, but because of the hazards of the trade they usually combined fishing with the fur trade to lessen the expenses of the distant voyages. Long before the establishment of New France a profitable trade in fish and furs had been established.

In the meantime, French explorers sailed westward in the name of France. Verrazano, a Florentine seaman, in 1524 provided a French paper claim to much of North America. Jacques Cartier of St. Malo sailed up the St. Lawrence River and explored it as far as the site of the present Montreal. His three expeditions (1534–1542) served to fix attention for the time being on the region near the Gulf of St. Lawrence. In 1562, Jean Ribaut explored the coast of Florida seeking a place of settlement for French Huguenots, but without success. Two years later, Huguenot colonists built Fort Carolina on the St. John's River, Florida, but the Spaniards put a quick end to it, blotting it out entirely. Before the end of the century a number of groups attempted to establish small colonies. None was permanent until Champlain, after several years of exploration, made possible the first permanent French settlement at Quebec (1608).

In spite of the devotion of Champlain, the "Father of New France," to the colony, its growth was slow. He had visions of a future nation with its capital at Quebec, but the French authorities, whose imagination was restricted to nomadic trading and trapping, granted monopolies to commercial companies. The colony on the St. Lawrence therefore expanded slowly. Priests, explorers and traders blazed a trail along the Great Lakes and down the Mississippi, preparing the way for scattered settlements in the heart of the continent. French posts finally extended from Nova Scotia to New Orleans. The expanding fur trade of New France as well as the harsh climate of the more settled regions in the north handicapped the production of agricultural products and made the French settlements dependent to some extent on the French West Indies, and the French fishing industry dependent on the English mainland colonies for supplies. Government policy, especially the principle of commercial monopoly and the seignioral system, together with the dominance of the Roman Catholic Church, strengthened control over the fur trade, but seriously restricted population and growth, which in the course of time led to the fall of New France as the English along the seaboard grew in numbers and power.

The English Background

England was much later than Portugal and Spain in developing a passion for colonization. The change in the map of the world following the discovery of America and the Cape route to the East placed that country closer to the center of world affairs. Yet she did little in this respect until the middle of the sixteenth century. It is true that a few years after Columbus' discovery, John Cabot, a Venetian by birth, a Genoese by legal adoption, and a merchant of Bristol at the time, sailed westward under the English flag. Like others of his period, he looked across the sea to lands unexplored and unknown. In 1497, with his son, Sebastian, he left Bristol and finally reached some of the islands and the mainland coast of North America. After an absence of about three months he was back in England. The voyage caused much enthusiasm in English seaports and led to a second expedition the next year under Sebastian Cabot to explore what was believed to be the coast line of northern Asia. The expeditions noted among other things the importance of the cod-fisheries of Newfoundland, but they were devoid of real results. Merchants and businessmen were thinking in terms of rich Oriental products and gold, not of fish, and as a result more than a hundred years passed before the first English colonies were established, although within a decade English fishing fleets were venturing to the New World. In closing this brief attempt at English exploration, Henry VII wrote in his account book: "To hym that found the new Isle, £10," and he granted John Cabot a pension of £20 annually which he did not live long to enjoy.

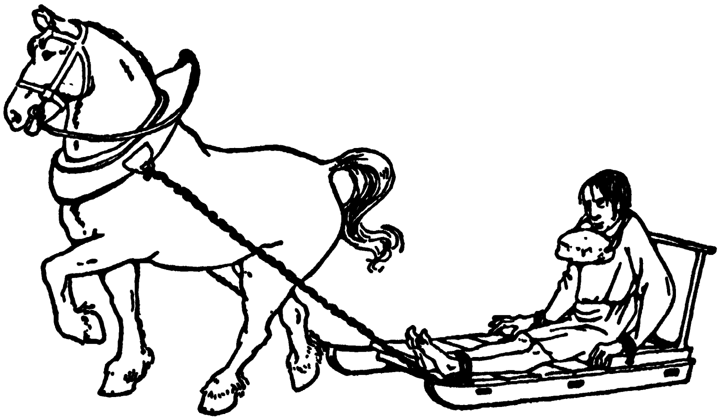
Many reasons can be given for the lack of British interest in exploration and colonization during the first half of the sixteenth century. While the modern period of English history may be dated from 1485 when the first Tudor, Henry VII, emerged the victor from the long and disastrous Wars of the Roses, England did not possess the energy to turn westward, largely because internal problems and concentration on domestic development absorbed her energies. As the island kingdom emerged from feudalism, she had little surplus capital to spare in expensive and hazardous ventures; land was still the principal form of wealth, although mercantile pursuits were developing; her vessels were poor and her merchant marine was small; her enemies, particularly Spain, were powerful and controlled the sea lanes. During the reign of Henry VIII, the religious and political scene was unsettled and remained so until Elizabeth came to the throne. The geography of exploration was also against Britain, for the parallel lines of latitude and ill-favored winds directed the course of its tiny vessels, in days when tacking was undeveloped, to harsh climates and bleak coasts and not to the mild sunny regions.

But England had many advantages which in the course of time were to make her the greatest of all colonizing powers. These included a long coast-line and abundant harbor facilities; an insular isolation which in this period saved her from invasion and the devastation of wars; a sturdy population made up of Anglo-Saxons, Celts, Danes, and Norman-French elements; a temperate climate; a rapidly increasing middle class of merchants and manufacturers, and, last but not least, ambitions which were not to be thwarted.

While earlier monarchs had worked to change England from a passive to an active economic role, it was the first Tudor who adopted a positive policy of expanding England's influence on the seas. In addition to having considered the financing of Columbus and having encouraged the activities of the Cabots, Henry VII did much to develop regular war fleets instead of the haphazard gathering of armed merchant vessels from the Cinque Ports and other places in times of emergency and during wars. He was responsible for the early elementary form of navigation legislation; while through diplomacy and alliances, he did everything possible to increase England's commerce, trade and manufactures.

Henry VIII continued the policy of his father. He expanded the British navy and even interested himself in problems of naval construction, as can be seen in the part he took in designing the *Great Harry,* a remarkably large ship for her day. Throughout his life and during the reigns of Edward VI and Mary Tudor, English seamanship steadily developed and the art of navigation advanced. Fishing fleets sailed regularly to Icelandic waters, while fishing in home waters increased. British seamen were also furnished with letters of marque, giving them authority to attack the Spaniards and others who could be considered enemies and not friends. By Elizabeth's reign, those privateering fleets had gradually grown into the navy of Hawkins, Howard, and Sir Francis Drake.

During this transitional period in English history, practices were begun which, while causing suffering to many groups and interests, were to result in greater glory to the nation and were to furnish wealth for new ventures in colonization and trade. The system of enclosures, enforced by law for the benefit of important landowners, brought together large tracts of land chiefly for the purpose of sheep raising. The enclosure of lands resulted in higher rents and greatly increased profits from wool for the landowners, but ousted peasants from plots which they had held by right, custom, or tenantry, bringing widespread unemployment. The seizure and confiscation of much of the wealth of the Church during the English Reformation enriched the government, but the spoils found their way into the hands of favorites and courtiers, furnishing much capital that was used in commercial undertakings. The beginning of the English slave trade also was an important factor in the expansion of British commerce. As early as 1562, John Hawkins carried African slaves from the Guinea Coast to Spanish possessions, although many years were to elapse before Britain broke the Spanish and Dutch slave-carrying monopolies. But by the time of Elizabeth the stage was set for expansion and for the beginnings of English imperialism.



Baker of Short-Weight Loaves Drawn to the Pillory

CHAPTER II

The Beginning of a New Society

Elizabethan Sea Dogs

The first important English explorations and the earliest attempts at colonization began during the reign of Elizabeth. That age, like the works of Shakespeare, its literary crown, did not spring spontaneously into existence. In all its aspects — social, economic, cultural, and political — it was the culmination of all that had gone before. The Renaissance in England, like that on the continent which had preceded it, was of slow growth and was rooted in medieval soil. Centering in Elizabeth's court, it burst into bloom like an unfolding rose. But even during this period of splendor, England was a turbulent and brawling country, where men defended their lives and property by their wits and swords, where political intrigue ran high and was fanned by religious differences, and where piracy and patriotism were closely related. During Elizabeth's long reign of forty-five years, however, the English people achieved relative prosperity, international prestige, and much fame — and ill-fame — on the high seas.

The most spectacular features of Elizabeth's "glorious age," which have cast a colorful glamour over that period, were the attacks of bold English buccaneers on the treasure cities of the Spanish Main and the plundering of Spanish galleons returning to the Old World laden with gold and silver from America. John Hawkins, Martin Frobisher, Sir Francis Drake, and other "sea dogs" sailed the Seven Seas, exploring barren Arctic wastes and luxurious tropical climes. They took great pride in daring adventures, especially against the Spaniards, who were forced to defend their possessions in America, as well as their right to sail the sea. The figure of Sir Francis Drake is one of the world's romantic characters, whose exploits included the circumnavigation of the globe, and were to culminate in the Channel fight against the Armada when the fleet under Lord Admiral Howard broke the might of Spain. But many others also played a most important part in building up England's prosperity during this period.

At the time that Elizabeth ascended the throne, England was not a rich country, while Spain was at the height of her power. How desperately poor England actually was can be sensed by the fact that the treasure of a single captured galleon was almost equal to one-fourth of the government's annual income. It is no wonder that the island kingdom with the connivance of Queen Elizabeth herself turned to such activities as privateering in which she participated. However, her ministers were at pains to keep her actions in this respect well concealed.

Among the earliest English explorers who sought the northwest passage and blazed the trail of discovery for England's glory was Martin Frobisher, who was financed by the Cathay Company. On his first westward voyage in 1576 he explored the bay that now bears his name and discovered Baffin Land. He returned with an Eskimo and with a small sample of what he thought was gold. On his third expedition, believing he had found vast stores of the precious metal, he returned home with a cargo of worthless pyrites or "fool's gold," to his own disappointed astonishment, the amusement of his friends, and the jeers of his enemies. Following the path of Frobisher, between 1585 and 1587, John Davis led three expeditions into Davis Strait and Baffin Bay in an unsuccessful attempt to find a passage through the intricate network of seas, inlets and bays. But out of the dreams of Sir Humphrey Gilbert to discover the northwest route to the East came the first real though futile attempts at English colonization.

Futile Attempts at Colonization

Sir Humphrey Gilbert, a member of the Muscovy Company, who wrote a *Discourse of a Discovery for a New Passage to Cataia* to prove the feasibility and desirability of seeking the northwest passage, secured from Elizabeth a patent for establishing a colony which he was to rule, reserving to the Crown one-fifth of all the profits from the venture. A settlement at Newfoundland was planned which would provide Sir Humphrey with a great estate, aid the English fisheries, and afford a station on the route to the Indies. Lands were sold, especially to wealthy English Catholics. Gilbert's friend, Richard Hakluyt, the geographer, gave the project publicity in his book, *Divers Voyages*. In 1583, with 260 men of all ranks and occupations, the colony was established; but the bleakness of the environment, the rigors of the winter climate, sickness, the thwarted desire to find gold, and serious mutiny brought about its failure. While attempting to reorganize his project, Gilbert was lost in a storm at sea and his colonizing mantle descended on his half-brother, Sir Walter Raleigh.

English seagoing activities began to take on a more constructive form under Gilbert and Raleigh as these men promoted colonization. Raleigh was a navigator, warrior, statesman, writer, and a favorite at Elizabeth's court. Following the tragic death of Gilbert, Raleigh received a royal grant almost identical with that of his predecessor. He sponsored three expeditions to the Albemarle region of the present North Carolina, a region then vaguely known as Virginia, in honor of the Virgin Queen. The first expedition, in 1584, was one of exploration. After two months, the party returned to England with reports of a beautiful country, vast forests, an abundance of game and fish, a fertile soil, and friendly Indians. Queen Elizabeth was pleased; she formally named the land Virginia; and she rewarded Raleigh by knighting him.

The next year a colony was established on Roanoke Island with Ralph Lane as Governor and Sir Richard Grenville in charge of the fleet. Thomas Hariot, the publicist of the group, pointed out that the manufacture of iron in the New World would be advantageous to the mother country. The abundance of ores, together with an infinite supply of wood from the vast forests, and the low cost of labor in a land of plenty, he believed, would make the cost of iron profitable, a suggestion of importance in view of the shortage of wood in England which affected shipbuilding. He was also impressed by the flora and fauna of the region. But the colony failed. Low supplies, the increasing unfriendliness of the Indians, and a vain quest for gold brought unrest and distress. When Drake's fleet appeared on the coast, the colonists returned to England after an experiment of ten months. Grenville returned with supplies, but found the colonists gone; he left fifteen men to maintain possession. But when Raleigh's third expedition reached Roanoke in 1587, headed by Captain John White, only the bones of one of Grenville's men were found. The fort and houses were in ruins.

The third expedition also failed. The settlement, usually known as the Lost Colony, was incorporated as "the Governor and Assistants of the Cities of Raleigh in Virginia." Three small ships left Plymouth on May 5, 1587 carrying 117 persons for the new colony. Although not by intention, Roanoke Island was once again the scene of colonization. Here the daughter of Governor White and wife of Ananias Dare gave birth to the first English child born in America. White returned to England to find that excitement and danger from the threatened Spanish Armada overshadowed everything else. He could not return to the colony until 1591 and when he reached the spot with new supplies, he found no trace of the colony except the letters CRO carved on a tree and the word Croatoan cut into the doorpost of the palisade. The fate of the colony remained a mystery. It has been assumed that the colonists went to the Indians on the island of Croatoan to the southward; some have thought that they were victims of the Spanish or possibly of unfriendly Indians.

While English sea power developed by leaps and bounds and English commerce was spreading to distant parts of the world, it became apparent that it would take more than individual initiative to establish permanent colonies. Out of British commercial enterprises the first successful colony was established. But this was not accomplished until after the death of Elizabeth and during the reign of her successor, the headstrong son of the tragic Mary, Queen of Scots, James I of England.

The First Successful English Colony

The growth of the sea power of England and of Holland challenged Spanish control of the sea lanes. The English defeat of the "Invincible Armada" in 1588, with the help of storms and favorable winds, was an important event in the beginning of the decline of Spain's power. That country's fall was brought about not only by the increasing power of her enemies, but through attempts to accomplish too much. While colonizing, developing, and defending America and the Philippines, and after 1580, all of Portugal's empire, Spain was waging war on the Mohammedans in North Africa, the eastern Mediterranean and eastern Europe; intermittently fighting France and England; attempting to dominate Italy and the Papacy; trying to secure some control of Germany; seeking to uphold Catholicism and crush heresy throughout Europe; and trying to retain mastery over the revolting Netherlands. As a result, the doom of Spanish power was sealed and as a gradual decline set in, more vigorous nations assumed world leadership.

By the beginning of the seventeenth century, in spite of the failure of colonial projects, there developed an increasing desire in England for expansion. In the words of a prominent man of the time, many had come to believe that "Nothing adds more glorie and greatness to anie nation, than the enlargement of theire territories, and multiplyinge of theire subjects." Many factors were responsible for this outlook. The successes against Spain; the lure for national wealth; the need for such raw materials as lumber, naval stores, and iron; the desire for more land for what was considered a surplus population; the hope of solving the problem of widespread unemployment brought about partly by the enclosures of land for the purpose of sheep-raising; and the necessity for finding markets for an increasing supply of manufactured goods, all these created an enthusiasm for expansion.

In establishing the first successful colony, England turned to the rising trading companies. Although beginning in the reign of Mary, it was during the age of Elizabeth that many regulated and joint-stock companies were chartered by the Crown. They were given economic concessions and a considerable degree of power in the regions specified in the patent or charter. The Eastland Company was granted a commercial monopoly in the Baltic Sea region; the Muscovy Company in Russia; the Levant Company in the eastern Mediterranean; and the greatest of them all, in 1600, the East India Company in the Oriental trade. The last-named company, long-lived, and the richest of the trading companies, exercised an influence on British colonial policy and was instrumental in building up Britain's empire in India. Its charters gave it a monopoly of trade with India, China and the East Indies. The company, at the height of its power, was given authority to appoint governors, to administer justice, and to fortify and command fortresses; it could equip war vessels, maintain troops, and was granted broad political and diplomatic powers. In 1858, as a result of the Sepoy mutiny, sovereignty of India and the powers of government vested in the company were transferred to the British Crown. In various parts of Europe, many trading companies were established during this age of commercial activity. By 1700, there were more than fifty in England, Holland, France, Sweden and Denmark.

Following somewhat the pattern of the commercial companies, in 1606 James I granted a charter which provided for the incorporation of two companies: the London Company (or Virginia Company) and the Plymouth Company. Both received similar rights and both were to be under the jurisdiction of the royal council for Virginia in London. The Plymouth Company sent out its first expedition in the summer of 1606 to seek a place for a plantation, but the vessel was captured by the Spaniards near Puerto Rico where it was driven by adverse winds. The members of the crew were carried prisoners to Spain. A second vessel dispatched in the autumn of 1606 reached the coast of Maine and returned with such glowing accounts of the land that two ships were sent out early the next year carrying settlers. Spurred on by the hopes of utilizing the rich resources of fish, lumber, furs, minerals, and farming lands, which explorers had mentioned, about 120 settlers landed at the mouth of the Kennebec River and on the west bank built a fort which they named St. George, a church, storehouse, and fifty houses. The difficulties of getting started, constant quarrels among many of them who had spent earlier days in English jails, the death of the sponsor of the venture, Sir John Popham, in England, and a savage Maine winter brought an end to the new colony. Most of the settlers sailed for home although a few joined the temporary fishing colonies which flourished in that region from time to time.

The London Company was more successful. In the spring of 1607, the first settlers — 120 men and boys, representing a cross-section of English contemporary life from the high-born Captain George Percy to the lowest laborer and including the imaginative Captain John Smith — disembarked and settled on a site which they named James Fort, or Jamestown. On an enclosure of about an acre they erected rude huts and tents and made dugouts in the ground. A small fort was built and wheat sown. The settlement began happily, but was continually confronted with dangers — from disease, Indians, and Spaniards. For a few years a "comunitie" plan of society favored the lazy at the expense of the industrious and was ended when Governor Thomas Dale (1611–1616) permitted private ownership. Because of the early difficulties the London Company secured charters in 1609 and 1612 which transferred matters of colonial government from the Crown to the company. Under the charter of 1612 the London Company became a self-governing corporation and from this time was commonly known as the Virginia Company.

The Virginia Company planned to establish lumber industries, ironworks and glass works, and to engage in silk production, but it also hoped that gold and silver would be found. The early broadsides issued by the company helped to entice to the new settlement "blacksmiths, coopers, carpenters, shipwrights, turners, all who work any kind of metal, men who make bricks, architects, bakers, weavers, shoemakers, sawyers, and those who spin wool." Even skilled workmen from foreign countries were encouraged to migrate to Virginia. Within a short time after settlement, naval stores were sent to England and also a cargo of iron ore which found its way to the East India Company. A group of men, known as the Southampton Adventurers, under rights granted by the Virginia Company, began to erect ironworks on the west side of Falling Creek, sixty-six miles above Jamestown. By 1621, the furnaces were well under way. The lighting of the fires was the signal for the terrible Indian massacre of 1622. The workmen were killed and the plant destroyed; no iron was produced in Virginia thereafter for a hundred years. Before the Virginia Company had time to recover from the blow, its political troubles with the English king increased and in 1624 its charter was revoked. Virginia was transformed into a royal colony, becoming the model for others that were to follow. In the meantime, while the settlers were in a precarious position, John Rolfe in 1612 gave the colony new economic life by introducing the culture of tobacco — learned from the Indians — which became the economic basis for successful colonization as European markets absorbed the product. Manufactures were in time forgotten and tobacco-growing became a passion. When Maryland and the Carolinas were established later, the culture of tobacco spread also to those regions.

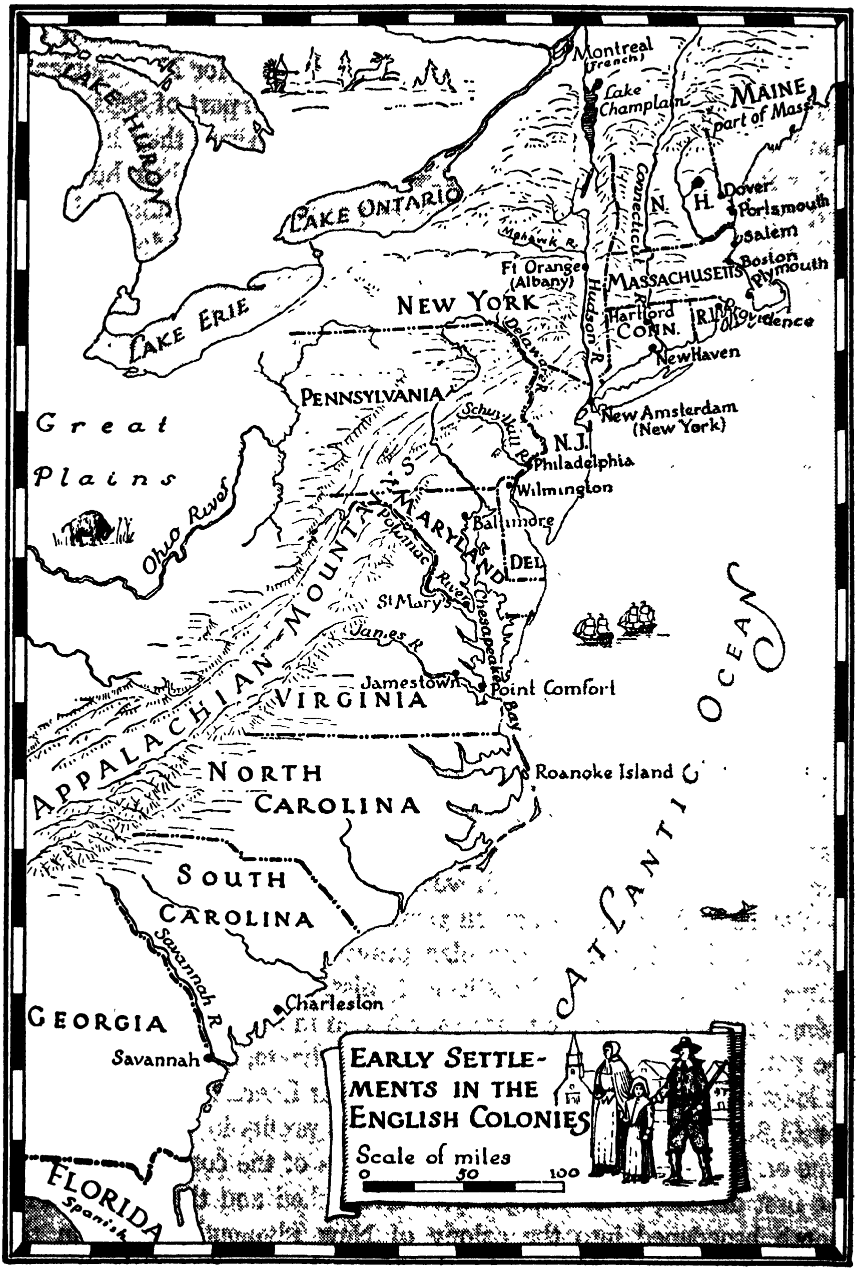
The career of the Virginia Company, which was relatively short, resulted in the beginning of successful British colonization. But the company had been formed for the purpose of making profits from its colony or plantation. Its stockholders who lived in England sent out workmen to labor in its interests. In its efforts, the company spent altogether £200,000 and sent to the New World many thousands of emigrants, but as a commercial venture it had very definitely failed. However, as a result of its activities it laid a part of the foundation of a great empire that was to arise with astonishing rapidity.

The New England Colonies

The second English colony to be established was New Plymouth. By the time that the *Mayflower* sailed, men could be found in almost every important fishing port of western Europe who could tell much about the Massachusetts coast, for those who fished at the Grand Banks — the submerged tableland between Newfoundland and deep water where Arctic currents and the Gulf Stream produce almost constant fog — often found shelter and succor there. Many explorers had sailed in that region. In 1602, Bartholomew Gosnold visited Cape Cod and gave it its name. Two years later, Champlain made a chart of the harbor of Gloucester. In 1614, Captain John Smith examined the Massachusetts coast and named the region, while he designated many Indian villages by English names.[1]

The Plymouth Company of 1606, after its failure on the Kennebec, was unsuccessful in financing further ventures. In 1620, its leading members secured a new charter which created the Council for New England. While the company was still engaged in making plans for colonization on a commercial basis, chance directed a band of Pilgrims to its shores. The group of English emigrants, who came in 1620, had planned to settle somewhere in Virginia and had received permission from the London Company to do so. But after five weeks spent in

[1] *Description of New England.* When Smith returned to England, he took with him a map he had made of the region. He persuaded Prince Charles to change the "barbarous" Indian names to "good English names." Accordingly, the Indian village of Accomack was renamed "Plimouth" as Smith's map shows. This was six years before the Pilgrims reached there.


Montreal
(French)
Lake Champlain
MAINE
part of Mass.
Lake Huron
Lake Ontario
Lake Erie
Mohawk R.
Connecticut R.
N. H.
Dover
Portsmouth
Salem
Boston
Plymouth
Ft Orange
(Albany)
MASSACHUSETTS
Hudson R.
New York
Delaware R.
Hartford
CONN.
R.I.
Providence
New Haven
Pennsylvania
New Amsterdam
(New York)
Schuylkill R.
N.J.
Philadelphia
Wilmington
Great Plains
Ohio River
Maryland
Baltimore
Potomac River
DEL.
St Mary's
Chesapeake Bay
James R.
Appalachian Mountains
Jamestown
Point Comfort
Virginia
Atlantic Ocean
Roanoke Island
North Carolina
South Carolina
Savannah R.
Charleston
Georgia
Savannah
Florida
Spanish
Early Settlements in the English Colonies
Scale of miles
0
50
100

exploring Cape Cod, the *Mayflower* anchored in the harbor of what came to be Plymouth, and made the famous pact which provided that all should make and keep the laws. After they had established the colony, they secured a new patent from the Council for New England.

The group that came to Plymouth was made up in part of Separatists, who had come from Leyden in the Netherlands where they had been living for more than a decade. They had abandoned their homes in northern England to escape religious persecution. While enjoying religious freedom in Holland, they became dissatisfied under a foreign flag; they were unused to the Dutch language and customs; they were having difficulty in plying their trades because of the guild regulations; and they were disturbed because of the dangers of worldliness and immorality that confronted their children. A number of them decided to go to the New World when they heard of the Jamestown settlement. In England they were joined by a few other Separatists and by a number who did not belong to their religious group. Only thirty-five of the 102 were really Pilgrims. From time to time the group was augmented by others sent from England, some of whom were of their faith and some who were not.

Those who set sail on the *Mayflower* were financed by a group of London merchants. A total of £7,000 was subscribed for the venture. An agreement was made between these "adventurers" and the "planters." The latter came to the colony both as servants and members of the joint-stock company. Each emigrant received one share of stock for "adventuring" and for every £10 of property he took with him he was given an additional share. It was agreed that the group should live in a communal fashion, all wealth produced going into the "common stock." At the end of seven years there was to be a "division" of both capital and profits. The plan proved unsatisfactory to all concerned. The hardships of settlement, dissatisfaction with communal living, and slow economic progress, resulted in much discontent within the new colony. In 1627, the London merchants, desiring to retrieve at least a part of their investment, sold their interests to the colonists for £1,800, which was paid largely through profits in furs. From this time on the settlers became the stockholders of the corporation. After the first decade, other villages were established and the town of Plymouth broadened into the colony of New Plymouth, which in the course of time was absorbed by the Massachusetts Bay Colony.

The religious note was especially dominant in the settlement of Massachusetts Bay Colony, although colonization was carried out at first through the medium of a commercial company. A royal charter of 1629 confirmed to a group of merchants and other investors lands that had been granted to them by the Council for New England the year before, with rights to trade and colonize between the Merrimac and Charles Rivers. In its beginnings, the company resembled others operating in the New World, but after receiving its royal charter, the emphasis of its interest changed from trade to religion. A number of Puritan stockholders who felt that the religious reforms they desired within the Anglican Church were hopeless, as Charles I began his "personal government" and Archbishop Laud enforced uniformity in the Church, looked across the seas to the new continent where they could establish a reformed Church free from what they considered to be Roman Catholic practices. The Cambridge Agreement was made by the leading Puritan members of the Massachusetts Bay Company, who bound themselves to embark for America. They decided to take their charter with them. Compromises had to be made with the merchants left behind concerning the business administration, but control of the enterprise in the future was with those who left England in the "Great Migration" of 1630, although a part of the joint-stock remained in the hands of English businessmen for a time. But the company had become a colonizing enterprise.

The charter of 1629 included provisions for a form of government with a governor, assistants and General Court of the stockholders. No clause, however, was included requiring the company to conduct its meetings in England and as a result the company became practically independent of the Crown and developed into a strong theocracy. The Puritans in the strict sense of their name, did not wish to separate from the Church as did the Pilgrims. They wanted to purify it of what they termed the "trappings of popery." But after arriving in America they did separate and accepted many of the doctrines of the Separatists.

From the very beginning the Puritan colony was relatively prosperous, in contrast to the early struggles at Jamestown and Plymouth. Quite soon the characteristic maritime activities of Massachusetts — fishing, shipping, and trading with the West Indies — appeared. During the decade of the thirties about 14,000 people emigrated to the Bay Colony. Not all, of course, were Puritans. Depression in English agriculture and in the cloth trade led many to the Bible Commonwealth for economic betterment. Among these were some who became discontented and quite troublesome.

While the Puritans sought toleration in the New World, they demonstrated that they in turn could not be tolerant. Differences and controversies arose within the settled community and especially between the east and west settlements. Many of these disputes found their way to the General Court. The strife over doctrine and polity resulted in the scattering of many groups to different regions of New England. Roger Williams, the brilliant minister of the church at Salem, who believed in religious freedom and in a separation of Church and State, came into conflict with the authorities and in 1636 was banished to England. To escape this, he made his way in midwinter to Narragansett Bay where he bought a tract of land from the Indians and founded Providence. Portsmouth was established by Mistress Anne Hutchinson and a number of followers, who left Massachusetts during the Antinomian controversy. Newport was founded the next year as an offshoot of Portsmouth and later Warwick came into existence. These settlements laid the basis for the colony of Rhode Island which was founded on the principle of religious freedom and became a refuge for sects that encountered persecution and discrimination elsewhere in America.

The story of the origin of Connecticut begins in the same period as that of Rhode Island. At the time of the Puritan migration the land from Narragansett Bay to the Pacific was granted to Lord Saye and Sele, who some years later founded Saybrook. During 1635 and 1636, groups from the Bay Colony, under the leadership of Thomas Hooker and others, tired of controversy and seeking more fertile lands, settled the three river towns of Windsor, Hartford, and Wethersfield. Other settlers from England established themselves independently on the shores of Long Island Sound. A group under Theophilus Eaton and the Reverend John Davenport located at New Haven with the purpose of establishing a trading town. Round about, other settlements grew up to form the New Haven Colony. All of these settlements in time became part of Connecticut.

Many from turbulent Massachusetts fled to the wild Maine region. Explorers had touched this coast long before any permanent English settlements were attempted. Verrazano, Hawkins, Gilbert, Gosnold, Champlain, Weymouth, and John Smith had visited its shores. Long before Plymouth was established lusty English, Dutch, French and Spanish settlements had appeared and disappeared along the Kennebec as fishermen and hunters moved from place to place. In the early days of the Pilgrim colony, settlers on the rocky island of Monhegan just off the Maine coast, gave aid to the Pilgrims in their dire distress and "fed them fat, loading them down with fish," but refused to take any kind of pay for their assistance. Attempts to establish a permanent colony in Maine under Captain John Mason and Sir Ferdinando Gorges, who were given proprietary grants, failed. But after 1630, a number of dissenters fled from the strait-laced Puritan colony to join the sturdy fishers and hunters whom they found there. Massachusetts claimed jurisdiction over the region and later was able to exercise authority over it.

The territory granted to Mason and Gorges included also the region that later became New Hampshire. In 1629, Mason alone held the area. Like Maine, the brief New Hampshire coast and the Isle of Shoals near it were visited by fishermen in the sixteenth century. Later, following persecution in Massachusetts Bay Colony, religious dissenters fled there, especially those of strong Anglican and Antinomian tendencies. For a time Massachusetts was able to assume control until finally royal authority was extended there and New Hampshire became a Crown colony (1679). Farming, lumbering, fishing, shipbuilding, and fur trading were the chief occupations in the northern outposts of the parent colony.

From the earliest years of the settlement of Massachusetts Bay Colony, groups scattered to various surrounding regions. Religious differences account largely for the centrifical movement that forced many from the original settlement. While New England in time would have developed and expanded naturally, the intolerant attitude and actions of the rulers of Massachusetts resulted in forcing from the colony those who would not conform to Puritan ideals and practices, thus giving an impetus to the dispersing movement.

The First Successful Proprietary Colony

Maryland was the first successful English proprietary colony. Like Plymouth and Massachusetts Bay Colony, the religious motive was prominent, although it was established by Catholics rather than dissatisfied or dissident Anglicans. It was founded not by a company but by a proprietor. Sir George Calvert, who had connections with the Virginia Company and the Council for New England, had in 1623 planned to colonize the Peninsula of Avalon in Newfoundland. The difficulties of settlement on its bleak shores convinced him that he should look farther south. He maintained the friendship of Charles I and secured from him a grant of land which became known as the Province or Palatinate of Maryland. It was not until 1632 that the right was granted. George Calvert died before the patent was completed and the charter was issued to his son Cecil, the second Lord Baltimore. The charter of Maryland was modeled after the earlier one to the Avalon plantation which in turn was patterned after the County Palatine of Durham, a Crown fief, the powers of whose bishop and ruler were second only to those of the king. The grant was carved out of the region known as Virginia, but the boundaries were very indefinitely stated. The proprietor was given the land outright together with extensive powers of government, including the collecting of taxes. He was an overlord with the right to select lords under his authority and was given the right to create manors in his province. In return he was to reserve for the Crown one-fifth of all the precious metals found within his domain and deliver two Indian arrows to the sovereign at Windsor Castle each year.

In March, 1634, the first settlers landed on Maryland soil. A cross was erected on St. Clement's Island in the Potomac and some distance down the river a permanent settlement was established centering in St. Mary's City. Lord Baltimore induced men of wealth to accept grants of land in return for aiding in colonization. He provided a refuge for Catholics, but welcomed without distinction all who cared to unite with him. The early history of Maryland was disturbed by conflicts between the proprietary party and Virginia traders, as well as boundary disputes with the heirs of William Penn, but economically the progress of the colony was successful from the beginning. Copying the Virginia pattern, tobacco became the chief staple of production and the important commodity for export. During the eighteenth century, the dependence on tobacco began to give way to the diversification of crops as settlement moved inland. Food products, shipbuilding, the importation of indentured servants and slaves, and a diversified commerce increased throughout the period.

The Colonies in the Mid-Seventeenth Century

By 1640, there were about 25,000 in the settlements of Plymouth, Massachusetts, Connecticut, Rhode Island, New Haven, New Hampshire, Maine, Virginia and Maryland. Within the period of a generation, several successful mainland colonies had been established. The West Indies were also being settled but at this time at a more rapid rate than the mainland colonies. By the same date, 40,000 had left England for the Sugar Islands, as they were called. Of the colonies along the seaboard, Massachusetts led with 14,000 while Virginia claimed about 8,000.

The years 1640 to 1660 in England were marked by the struggle between Parliament and the king, the Civil War, the Puritan Revolution, the beheading of Charles I, the dictatorship of Cromwell, the decline of the Commonwealth, the dissatisfaction with drab Puritan rule, and finally the return of the Stuarts to power. The tide of migration to the colonies did not cease during the period but it changed somewhat in character. The Puritans lost interest in migrating to America, although Massachusetts now became most independent. Some royal sympathizers left England for the southern colonies, but the number was not large. A few business men, tired of Puritan rule, came to the New World as did increasing numbers of indentured servants, many of whom were paupers, political offenders and criminals.

The Enterprises of the Restoration

The return of Charles II from the continent to rule as king was the signal for a revived England. As the king rode into London, the city became madly exuberant. A new era in English history had begun and a new phase of colonization had opened. The king was surrounded with royal favorites who imposed upon England an aristocratic rule. All gladly accepted the numerous titles, honors, and presents conferred upon them. Most were interested in the great monopolistic companies and therefore in commerce and in colonies. In their desire to secure money and to avoid the pitfalls of Charles I, the new monarch and his courtiers looked to the colonies as means of securing revenue and enlarging English trade. During the early years of the Restoration several charters were granted and the growing commercial spurt led to the founding of new colonies. Important navigation acts were passed in the attempt to control the economic activities of British possessions over the seas and definite attempts were made to put the mercantile theory into practice.

Partly to foster rivals to Massachusetts Bay Colony, Charles granted liberal charters to the settlements at Connecticut and Rhode Island. Massachusetts had become almost an independent republic and in 1661 had issued a "Declaration of Rights" against what was termed "the legislative encroachments" of England. The people of Connecticut desired a charter, for they felt that the Warwick patent under which they obtained their lands gave them uncertain tenure. So liberal were the terms of the charter of 1662 that it was almost a grant of freedom to the colony. Territorial and governmental security was assured by the charter, which brought New Haven within the Connecticut Colony. Because of its liberality, the charter remained in effect with few changes until 1818. In the year 1663, Rhode Island obtained a liberal charter from Charles II, which replaced the first one secured by Roger Williams from a parliamentary commission in 1644. The new document gave official sanction "to hold forth a livelie experiment" in the separation of Church and State, which Rhode Island consistently observed. As was true of the Connecticut charter, it also provided for an elected governor, assistants and assembly, and suffrage was left entirely to colonial control. This charter with few changes served Rhode Island as constitution of the colony and state until 1842.

In 1663, with characteristic generosity and the encouragement of the commercialists, Charles II gave eight English nobles the Carolinas. By a second charter two years later they received the southern half of the present United States. The grant was a proprietary one. A plan of government was prepared by the English philosopher, John Locke, in the elaborate and unworkable *Fundamental Constitutions.* This form of government provided for control by an hereditary nobility whose estates should be inalienable and indivisible. Agreeable to Charles II it was designed as a safeguard against a "numerous democracy." Although put into practice to some extent, the plan soon failed.

The first permanent settlement in the Carolinas was made on the northern shore of Albemarle Sound where some disgruntled Virginians had settled as early as 1650. This was not far from Roanoke Island, the scene of the tragedy of Sir Walter Raleigh's attempts at colonization. The proprietors offered land grants, tax exemption, and other inducements to settlers in this region which became the nucleus of the colony of North Carolina. A settlement was made in the south also, at the present site of Charleston. The colony prospered almost from the first because of the excellent harbor, the promotional ingenuity of the proprietors, and the influx of various groups including English dissenters, Scottish Highlanders and French Huguenots. This settlement was the beginnings of South Carolina. Until the early part of the eighteenth century, things went fairly well with the settlers at Albemarle and Charleston, except for struggles against the proprietary system of control, both economic and political. Then, Indian and Spanish attacks, pirate raids, the loss of settlers to other colonies, difficulties in collecting quitrents, and other problems resulted in the sale of the proprietary rights to the Crown. In 1719, when a Spanish invasion threatened, the colonists used the occasion to march on Charleston and to seize control. A revolutionary convention took over the province in the name of the king and later the proprietors received remuneration for it. In 1729, they surrendered to the Crown their rights to the region in the north. The two groups of settlements clustering in Albemarle and Charleston became the separately-governed royal provinces of North Carolina and South Carolina.

During the early years of the Restoration, the English wrested from the Dutch the province of New Netherland, which separated the New England and southern British colonies. The story of Dutch settlement goes back some decades. By the beginning of the seventeenth century, Holland had developed into one of the leading commercial and industrial nations in Europe, especially through its trade with the Far East. Like its competitors, it was anxious to find a new route to the Orient other than around Africa. About the time that Jamestown was being first settled, an English captain, Henry Hudson, sailed from London with only ten men and a boy in search of a probable northeast passage and proceeded beyond the eightieth degree of latitude. A daring and ambitious sailor, he made repeated attempts to find an all-water route to India and China. Sailing in the far North, he forced his ship into unknown waters, but ice packs barred his way. During the summer of 1609 he sailed for the Dutch East India Company in quest of a northwest passage. From Newfoundland, he moved southward and reached the coasts of what are now Virginia, Maryland, Delaware, and New Jersey. On September 2, 1609, the *Halve Maene* or "Half Moon," a clumsy Dutch vessel of eighty tons, sailed into a silent bay into which flowed a great river. Henry Hudson continued up the river to the head of navigation, but found no northwest passage. Instead, he gave the Netherlands a seat of settlement in America and brought Dutch influence to the New World.

Fifteen years later, the Dutch began the settlement of New Amsterdam and Fort Orange. But colonists were few. In order to secure increased immigration, a new Dutch West India Company began to grant large domains which seated the patroons on the river which Hudson called the "Great River of the Mountains." The patroon held his land as a "perpetual fief of inheritance" and swore fealty to the company, whereupon he was given complete jurisdiction over the settlers he was required to bring from the Old World. The plan was not very successful. A few patroons secured control of most of the land along the Hudson. But Dutch colonization continued at a slow pace. In addition there were many problems including the difficulty of a commercial company to manage its affairs across the ocean, Indian troubles, conflicts with the English settlers to the North, and threats from the attempted Swedish occupation of the Delaware. Moreover, there was no great surplus population in Holland and no driving political, religious, or economic discontent to induce any considerable number of people to try their fortunes in a new land. The quasi-feudal patroonships along the Hudson did not attract many colonists from other countries in Europe, although New Amsterdam early became quite cosmopolitan. The preoccupation of the Dutch at home contributed to the precariousness with which they held on to their possessions in America.

The new nationalism of the Restoration period, including the program of drawing the colonies into closer relation with the mother country in the interests of mercantilism, demanded the elimination of the Dutch as competitors on the American continent. In 1664, an

English fleet under the command of Richard Nicholls sailed into the harbor of New Amsterdam and demanded the colony. Old peg-legged Peter Stuyvesant, the governor, made frantic appeals to the people to fight, but the settlers — a cosmopolitan crowd — not wanting the town destroyed, refused. Many of them welcomed English rule. Without a blow, the entire possessions of the Dutch on the continent of North America passed to the English. New York, New Jersey and Delaware were granted to the Duke of York, brother of the king. The change from New Netherland to New York marked the beginning of a new government. The Duke's charter made him lord proprietor with complete authority to rule in his province, unchecked by a representative assembly. The "Duke of York's Laws," compiled largely from the existing codes of Massachusetts and New Haven, were gradually extended over the whole province. When the Duke became James II in 1685 after the death of his brother, the colony was added to the growing list of royal colonies.

Not long after the Duke of York received New Netherland, he conveyed by deed the part of it located between the Hudson and Delaware Rivers to Lord John Berkeley and Sir George Carteret as joint proprietors. By terms of the conveyance the province was to be called New Caesarea or New Jersey. The proprietors assumed powers of government and established the usual form. To the small Dutch and Swedish population were added settlers from New England and Old England, especially after Quaker interests headed by William Penn secured the western portion. At this time the province was divided into East and West Jersey (1676). The latter became a refuge for persecuted Quakers who established the towns of Salem and Burlington. East Jersey was offered at auction by Carteret's heirs and was purchased by Penn and a number of associates in 1682. Puritans, Quakers and Baptists from Long Island and New England first settled in this region. Many problems arose and proprietary authority disintegrated. As a result, the proprietors surrendered the government to the Crown in 1702 and the two divisions were reunited under royal rule.

The career of Pennsylvania under the English was also launched in the period of the Restoration. Early in the century, the territory on the Delaware was claimed by the Dutch and English. But it was the Swedes who made the first definite attempt to colonize the region. In the spring of 1638, a company of Swedes, Finns and Netherlanders under the leadership of the doughty Dutch cosmopolitan, Peter Minuit. established a Swedish colony on the banks of the Delaware, made peace with the Indians, purchased land from them, and called the new outpost New Sweden. They laid out farms in scattered settlements, began trading with the red men for furs and established Fort Christina (now Wilmington). A few years later, Colonel Johan Printz, a soldier schooled in the Thirty Years' War, was appointed by the Royal Chancellor of Queen Christina as the third governor of New Sweden. The weighty Printz made Old Tinicum Island the new site of his fort, settlement, and mansion because the island gave him excellent command of the river. Although Old Sweden was rapidly developing industries — especially the production of iron — and many Swedes were fired with the desire to emulate the mother country in this respect, they faced too many difficulties in the New World in establishing settlements to make much progress in manufactures. New Sweden maintained its independence only seventeen years, for in 1655 it was taken under the control of the Dutch who had claimed this territory long before the Swedish settlement but who held New Netherland only until 1664.

Although Swedish control on the Delaware was brief, these early Swedish pioneers affected American life. They contributed the log cabin to America's frontier culture; they set an example of peaceful dealings with the Indians; and they blazed the trail for the large number of Swedes who two hundred years later became a dominant factor in the settlement and civilization of several territories and states in the northern part of the United States.

While small colonies of Swedes, Finns, Germans and Dutch were living along the Delaware, William Penn, the distinguished convert to Quakerism, received from Charles II a proprietary grant of the province which became known as Pennsylvania. It was presented to him to extinguish a debt owed by the Crown to his father, Admiral Penn, who had been active in helping to bring about the restoration of the Stuarts. It was given also to advance the commercial interests of the mercantilists. Penn's dream was to make it a haven for Quakers and all other persecuted groups. As proprietor, in 1682 he drew up his first Frame of Government, thus initiating his Holy Experiment, guaranteeing civil liberty, religious freedom, and economic opportunity to all who would settle in his province. His plans for government were based on extreme pacific principles that seemed fantastic to his critics as he established complete freedom of worship for all creeds. In 1682, he granted a liberal charter to the Free Society of Traders, including large tracts of land and the privilege of carrying on manufactures and trade. In order to have direct access from his province to the ocean William Penn secured from the Duke of York the Lower Counties on Delaware which became Delaware. With the permission of Penn, these three counties set up a separate assembly in 1704, but remained under the same governor until the Revolution. Although late in getting started, Pennsylvania made rapid economic progress. Skillful advertising by Penn, especially in England and in the German Palatinate, and the freedom afforded within the province together with its location and resources brought increasing numbers of settlers and made it one of the leading colonies within a few decades. Philadelphia, its capital, became the chief city of all the colonies and the center of commerce, trade, handicrafts, science, and culture.

The Founding of Georgia

Georgia was the last of the mainland colonies to be established. Motives for its founding varied with the different groups who were active in its creation. To erect a barrier against the Spanish to the south and the French in Louisiana, to produce silk and other raw material, to rehabilitate English debtors unfortunate enough to be jailed, and to offer a refuge for persecuted Protestants, were the reasons for its founding. James Edward Oglethorpe and Lord John Percival led in securing its charter in 1732 from George II. It provided that a board of trustees should govern the colony for twenty-one years, after which control was to revert to the Crown. In 1733, the first colonists settled at Savannah. In addition to English settlers, other unfortunate victims of misfortune and oppression from Germany and Switzerland were welcomed to Georgia by the trustees. Although various groups came to the new colony, it did not prosper, partly because of certain rules formulated by the trustees, such as the exclusion of Negroes, prohibitions against rum, and a restricted land system. In 1752, after twenty years of control, the trustees surrendered their charter and Georgia became a royal province.

The Various Racial Groups

By 1700, there were about 80,000 settlers living in the New England colonies. Virginia, Maryland, and the Carolinas together had a population of about 85,000. In the middle colonies lived about 45,000. This comprised a total of more than 200,000, most of whom were of English stock. By this time, however, other racial groups were entering the country in increasing numbers, adding to the total of non-English minority groups, such as the Dutch, Swedes, Huguenots, and others. Especially significant was the immigration of the Germans and the Scotch-Irish.

The Germans came largely from the Rhine country, chiefly from the Palatinate and Wurttemberg, where political and religious persecution, endless wars, and economic disorders and destruction prevailed. Many victims of the Thirty Years' War and the wars of Louis XIV left their devastated homeland and came to the New World. The advertising of the Carolina proprietors and the efforts of William Penn to induce settlers to leave their old homes bore results. In the first half of the eighteenth century, increasing numbers, especially Moravians, Mennonites, Dunkards, Lutherans, and Reformed Germans settled in Pennsylvania, New York, New Jersey, Delaware, Maryland, Virginia, the Carolinas and Georgia. Most of them took up the best lands just west of the settled regions. The different groups were clannish, but proved to be hard-working, careful, thrifty farmers, whose traits survive today in the "Pennsylvania Dutch." On the eve of the Revolution, there were about 225,000 people of German blood in the United States, making up almost one-tenth of the total population. One-third of those of German stock lived in Pennsylvania.

The Scotch-Irish came to America from northern Ireland. Their history in that country goes back to the reign of James I. That monarch, a Scotsman by birth, decided to put down the troublesome and long-rebellious Irish by replacing certain sections of their country with English and Scotch colonists. Irish estates in northern Ireland were confiscated and given to British landowners, who encouraged English and Scotch colonists to settle on their lands. The migration from Scotland to Ulster, begun in 1607, continued intermittently in the decades that followed, so that more than a million Scotch Presbyterians were living in Ireland by 1700.

Although the new settlers frequently fought Catholic neighbors and were often involved in controversy with the English government, these thrifty farmers and businessmen prospered for a time as they adjusted themselves to new conditions and modified their Scotch customs. During the latter part of the seventeenth century, however, they faced many difficulties. Parliament passed laws prohibiting the importation into England of cattle, meat, butter, or cheese from Ireland; the export of Irish woolen manufactures was also forbidden to any country except England and these goods were burdened with such heavy duties when exported to England that the Irish cloth industry was slowly destroyed. The Woolens Act of 1699 forbade the exportation of wool from Ireland, rendering sheep-raising unprofitable. These laws were passed to protect English interests and prosperity; they had the effect of seriously injuring the Scotch-Irish. By the Test Act of 1704 they were excluded from holding civil and military offices, denied a voice in government, and required to pay taxes to support the Anglican Church. Because of these restrictions many left Ulster for America.

Scotch-Irish Presbyterians came to the English mainland colonies in America as early as the middle of the seventeenth century. Their numbers were not large until the opening of the eighteenth century. The movement was then accelerated when absentee English landlords began to increase rentals on farms held by them under long-term leases which were expiring. A steady stream of Scotch-Irish immigrants poured into American ports. The total number has not been definitely ascertained, but it is estimated that nearly 200,000 Scotch-Irish or of Scotch-Irish extraction lived in America at the time of the Revolution. They established clusters of settlements in all the colonies, especially in Pennsylvania, Virginia, Maryland and in the Carolinas, but were most numerous in the back country. They developed on the colonial frontiers an individualistic, self-reliant, and somewhat democratic form of life, in contrast to the more cultured and settled life of the older east.

Other peoples in much lesser numbers came to the seaboard colonies. During the religious troubles in France, Huguenots — whose religion was Calvinistic in theology, ritualistic in form, Presbyterian in government, and tolerant in principle — fled to different parts of the world. During Dutch control, small groups of Huguenots, chiefly French-speaking Walloons, settled in New Netherland. After the dragonnades of Louis XIV several hundred French Protestant families reached Boston and from 1670 Huguenots played an important part in the settlement of Charleston, South Carolina, where sections of the city became largely or entirely French. After Louis XIV revoked the tolerant Edict of Nantes in 1685, a number settled in Rhode Island, Connecticut, New York, Delaware, Maryland, and Pennsylvania, as well as in South Carolina.

Swiss immigrants came singly and in small groups, making settlements especially in Pennsylvania, North Carolina, and South Carolina. The Welsh were among the early settlers in many colonies and were firm advocates of political and religious liberty. Some of them were Quakers and groups settled outside Philadelphia on the tract provided them by William Penn, where Celtic place-names still remain. Others, representing different types of dissenters, settled elsewhere in Pennsylvania, the Carolinas, and even in sections of New England. Scotch Presbyterians settled in New Jersey, New England, and South Carolina, while thousands of Irish Catholics sought freedom in the various settlements along the coast. Jews in small numbers came during the earliest days in spite of British restrictions against them. By the close of the colonial period, they could be found in all the important commercial towns. Most were of Spanish and Portuguese origin, although many came from Holland and a few from other European countries. To these various racial groups, the relatively large numbers of Negro slaves brought into the colonies must be added.

By the time of the Declaration of Independence the inhabitants of the thirteen colonies numbered about 2,500,000. While individuals of English descent outnumbered all other racial groups, the Germans and Scotch-Irish were conspicuous in the intricate pattern of colonial population. And a view of the fabric of colonial stock would not be complete without noting the other strains, including the Dutch, Swedes, Finns, Huguenots, Swiss, Welsh, Scotch, Irish Catholics, Jews, and Negroes. These peoples formed the basis for a new race, and also for a new society, which was to develop and expand in a way undreamed of by the inhabitants on the fringe of the Atlantic coastal plain.

The Colonies in 1775

While colonies were established by various agencies — commercial or trading companies, proprietors, independent groups, or directly by the king — there was a tendency to bring them all under the direct control of the Crown. This can be seen in the unsuccessful attempt of James II who made Sir Edmund Andros governor-general of all the New England colonies, New York, East Jersey, and West Jersey. Although the plan failed when the king was banished and William and Mary became England's rulers as a result of the Glorious Revolution of 1688, the trend continued. In 1775, there were only three proprietary provinces — Maryland, Pennsylvania, and Delaware; and two independent colonies — Connecticut and Rhode Island. All the rest were royal colonies, although Massachusetts had a charter which granted certain privileges denied to the other royal possessions.

England's colonial activity was marked by a large scale emigration from the mother country. This was due partly to a relative over-population at certain times and to agricultural and industrial depression and changes in different periods and places. It was also brought about because England permitted the emigration of religious dissenters, which was not true of Spanish and French colonization. The Catholic nations believed it to be a religious duty to keep their colonies pure in Catholic orthodoxy. Not so the English. Different religious, political and social groups from foreign countries as well as from Britain were not only permitted but were encouraged to settle in the English possessions. The result by 1775 was the establishment of a new nation, bound by various bonds, fretting over imperial regulations, and having a population of about one-third of that of the mother country. At the outbreak of the Revolution, the population of England and Wales was about 7,500,000 compared to 2,500,000 in the seaboard colonies.

The Growth of the British Empire

We have traced the rise of the scattered settlements along the Atlantic seaboard, which is our chief concern. It should be kept in mind, however, that by the middle of the eighteenth century, England had established a far-flung empire of great extent, possessing remarkable diversity and much material wealth. By this time, the "British flag was flying from outposts scattered from the Arctic to the equatorial belt, from the Great Lakes of North America to Borneo in the Far East." It had come into existence as a result of wars of conquest, by treaties of cession, and through overseas trade as well as colonization. Its 15,000,000 people included white, bronze, black and brown subjects. All together thirty-one governments were subordinate to Great Britain, ranging from the practically autonomous charter colonies of Connecticut and Rhode Island to the Crown possessions and the factories of the East India Company.[2] Diversity is seen not only in peoples and institutions, but also in economic life. Wool, coal, iron manufactures and wheat from England, flax and farm products from Ireland, ships and timber from New England, articles of food and iron from the middle colonies, tobacco from the Chesapeake Bay region, rice and indigo from South Carolina, logwood from Honduras Bay, sugar and molasses from the West Indies, fish from the regions of Newfoundland, furs and skins from Hudson Bay and the back country, slaves and ivory from the West African coast, and a variety of desirable articles from the East India posts, attest to the material wealth of a great empire built up in a period of a century and a half.

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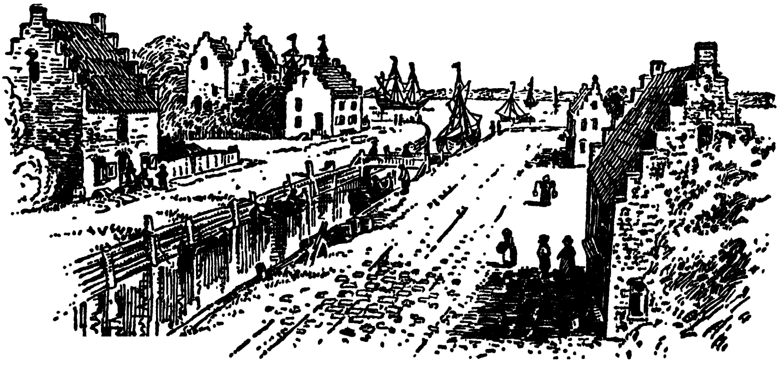
[2] L. H. Gipson, *The British Empire Before the American Revolution*, Vol. I: *Great Britain and Ireland* (Caldwell, Idaho, 1936), pp. 3 ff.



New Amsterdam in 1663

CHAPTER III

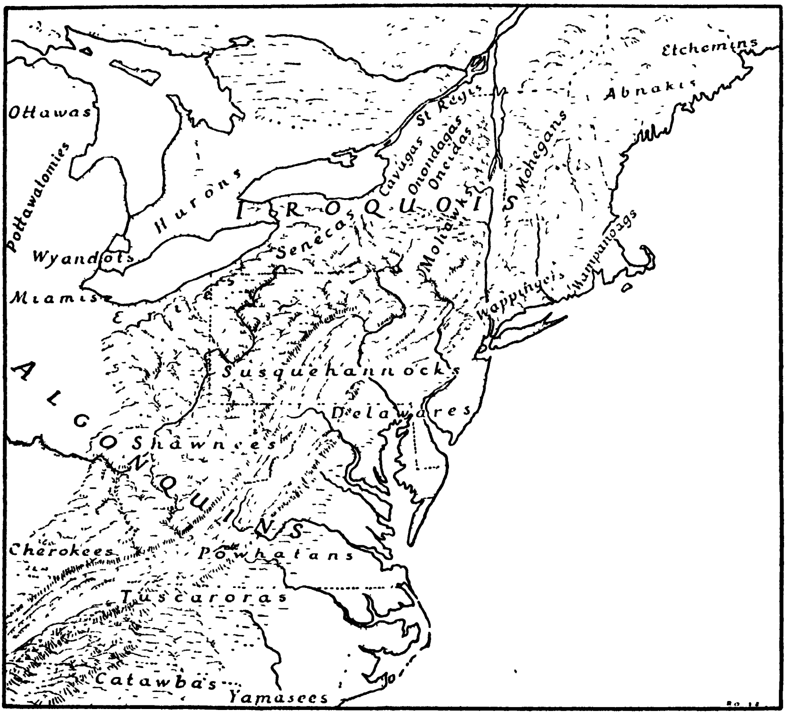
Agriculture in the Colonies

The American Setting

The early immigrants who reached the Atlantic coastal plain after crossing a broad expanse of ocean in small, sturdy ill-smelling vessels — crowded with man and beast — surviving disease, storms, pirates, and enemy privateers, saw a land covered with great primeval forests. From Maine to Georgia the forests offered the settlers almost limitless lumber for their homes, barns, furniture and tools as well as an abundance of cheap fuel and a product for export. Settlement was made just beyond the sandy beaches or the rocky shores of the coast, frequently in open spaces that had been cleared at some earlier time by the nomadic Indians, or in areas where the trees were less dense, or even within the forest shade.

North America was a country rich in food and in material resources. The forests of the Atlantic region were full of deer and other game, while the rivers and creeks teemed with fish. Wild ducks and other birds frequented the marshlands in vast numbers and wild fruits, berries and nuts were plentiful in most sections. Yet some of the earliest settlers faced starvation at times because they knew little or nothing about hunting or fishing, or because of harsh and severe weather. In all colonies, after the trying period of getting started was over, the settlers were able to raise sufficient food for their own use and in time they produced a surplus to be sold locally and even for export.

The early colonists were faced with a people — new and strange to them — to whom the name of Indian had been mistakenly given by early explorers. According to the generally accepted theory today, the Indians are descendants of early Mongoloid peoples who reached northern America from Asia by way of the Bering Strait thousands of years before the white man came, possibly before the mammoth, the wild horse and the ground sloth became extinct on the continent. Those who got into Central and South America developed relatively high cultures, while those of the North made little cultural advancement. As the ancestors of the American Indian scattered into various types of environment, they developed different methods of warfare and hunting, religious practices, family life, and legal codes. Through Indian languages and dialects modern scholarship has been able to classify them and to show that all the widely dispersed groups and tribes belonged to one original stock. The emigrants from Europe found the Indians of the eastern coast friendly and very helpful at times, but also fiercely warlike and cruel at other times. The natives were primarily hunters and gatherers of wild foods, but they sporadically engaged in agriculture, maize being their chief crop. Tobacco was grown largely for ceremonial uses. If the Indian and his ways appeared strange to the Englishman, the white man puzzled the Indian, especially by his settled mode of living, his peculiar customs, and his sacred regard for individual holdings and the rights of property. The European not only crowded the Indian westward, but gave him his diseases, often more fatal to the savage than the white man's greed, treachery and anger; he furnished the Indian with firearms which in-



INDIAN TRIBES EAST OF THE MISSISSIPPI

creased the deadliness of inter-tribal warfare and also the danger to the colonists themselves; and he gave him liquor which debauched and demoralized him. The Indian, on the other hand, when aroused or opposed, became hostile and savage. At times, when on the warpath, he attacked and slew innocent colonists living in peaceful settlements. He could be extremely cruel, scalping the living as well as the dead and putting captives to death by means of the most terrifying and brutal forms of torture.

The string of settlements that was established by the English remained bound to the coastal plain throughout the colonial era. This was due primarily to the Appalachian barrier and to the fact that no great river or mighty waterway led directly into the lands of the interior. The French settlements were dominated by two great rivers — the St. Lawrence and the Mississippi; as a result New France developed as a series of scattered settlements, whose inhabitants traveled far and wide in search of furs. Throughout the early period, the English settlers were influenced by the larger and smaller indentations of the coast and by the streams and rivers draining into them. The mountains restricted their horizon, took away the temptation to immediate broad expansion, and made agriculture their dominant occupation. At the one place where penetration was possible — by way of the Hudson and the great Mohawk Valley gateway to the West — the Iroquois Confederacy prevented migration.

The English Scene

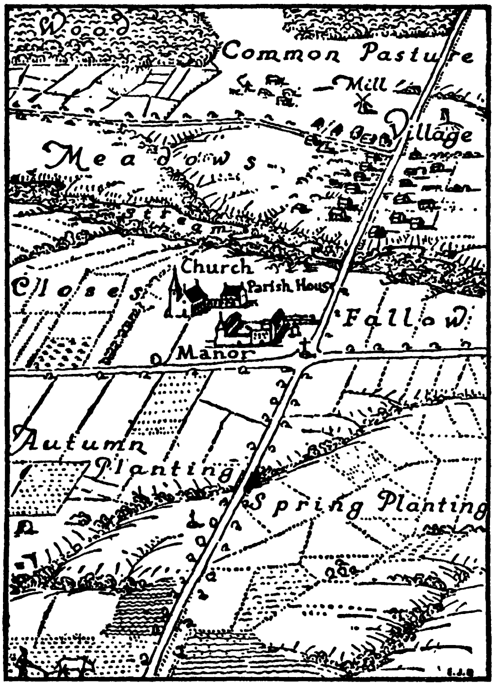
Seventeenth-century England whence came the first settlers was essentially an agricultural country. There were towns, of course, including the metropolis of London, but English wealth was largely secured by the ownership of land and most English workers labored on farms. England was concerned chiefly in the raising of wheat and livestock. The eastern and southern parts of the country supplied a surplus of wheat, while the western and northern parts were devoted to grazing and stock-raising. But such activities were not confined to these regions alone. Grain was grown in almost all sections. The counties of Lancashire, Northampton, Lincoln, Hereford, and Sussex became famous for their cattle; Hampshire and Leicester were important for horses; while Rutland, Wiltshire, Shropshire, Dorset, Gloucester, Leicester, and York were outstanding sheep-raising regions. About half the land was under cultivation, the remainder being pasture, woodland, moor or fen. The forests which had once covered the island had been largely cut down and laws were in force, attempting to save what remained of them. Agricultural progress, which became apparent during Elizabeth's reign, continued until checked by the wars between the Cavaliers and the Puritans in the reign of Charles I.

Under the first two Stuarts — James I and Charles I — the rise in prices, brought about chiefly by the influx of precious metals from the New World to the Old, and an increasing demand for foodstuffs as population grew, resulted in slowing up the enclosure of lands for sheep raising, and stimulated an interest in more scientific methods of farming, improvements in conditions of tillage, and even in the reclamation of waste lands. Larger profits in grain and meat sped production of those commodities. Agricultural books appeared and were read; Italian methods of irrigation were tried; attempts were made to drain the fens; experiments were carried out in growing turnips and clover as a substitute for letting the land lie fallow; new vegetable crops such as potatoes and carrots were introduced; and more attention was paid to orchards and gardens. But the difficulties of the Civil War and the problems of the Restoration held back advancement, and improvements in farming did not get under way until the eighteenth century, when the so-called agricultural revolution occurred.

Although the enclosures continued, a large part of the English countryside in the seventeenth century was still in unfenced open fields. This was chiefly because the holdings of many individuals were scattered among the lands of others, an heritage from feudal days. The enclosures largely benefited great landlords. Under the authority of the law they ejected peasants who had inherited the right to squat, cut turf, hunt, fish, and pasture a cow or two. The movement also resulted in the enclosure of much of the "commons" and the strips of the villages. Such village lands were divided into as many sections as there were landholders according to their rights. Each then could use his individual holding as he saw fit. But in spite of these changes and the experiments for better farming, the three-field system was still widely used. Under this medieval plan, jointly-held plowlands were divided into three parts, one cultivated for a winter grain, such as wheat or rye sowed in the fall, one for a cereal sowed in early spring, and the third left fallow.

By the seventeenth century, industry was extending into the English country districts. As the merchant and craft guild declined, merchants distributed wool to farmers and villagers to be worked into cloth. This "domestic system" had the advantages of extending the production of woolen cloth and of opening up a new field of occupation to agricultural laborers and small farmers. Under this system fine cloths, coarse weaves, long ells, serges, crepes, and linsey cloth, as well as a variety of other goods were produced. In many sections, this plan of industry was extended to iron and brass manufactures, including the making of tools. Rustics had small forges at which they hammered out nails or fashioned implements of iron and brass when not employed in the fields, especially during winter months.

Except for the great city of London which had a population of almost half a million — one-tenth of England's inhabitants — only four towns had more than ten thousand people in the seventeenth century. Bristol, a busy seaport on the southwest coast, important in American trade, Norwich, the center of the East Anglian woolen industry, York, the "capital" of the north, and Exeter, "capital" of the west, led, in size, a number of smaller towns. The places that were to become important in the next century as the industrial revolution got under way were small. Manchester, Leeds, Birmingham and Sheffield had only a few thousand inhabitants each. But the provincial towns were important especially for their industry, commerce and trade. Here the courts, markets and fairs were held and in these urban centers gay balls and all sorts of social activities attracted the important country families for miles around.



Plan of an English Manor

The gradations of social classes stand out in seventeenth century rural England. English society was composed of the nobility with their vast land-holdings; the country gentry with their broad acres; the clergy varying from the bishops and town clergy to the anomalous country parsons; the townsfolk who engaged in trade and industry; the yeomen freeholders who tilled their lands with the help of a few laborers; tenant farmers who rented holdings that averaged forty to fifty acres; and the mass of agricultural laborers and cotters. From the small number of nobility at the top of the social scale, each group increased greatly in number, so that the lowest stratum of society, the agricultural laborers — including their families — made up almost one-half of England's five million inhabitants. While class distinctions were well-rooted and deeply respected, and most people lived and died in the social group into which they were born, there was some degree of friendly association among various classes, omitting the nobility. This could be seen especially between those of different rank who often mingled in the village and grammar schools of the provincial towns, although at the universities there were marked distinctions. It could be sensed in the condescending spirit of concern and good will on the part of the country squires for their tenants and others beneath them in rank. It could also be observed in the links forged by marriage between many of the landed gentry and the rising trading classes. It is therefore easy to understand how those of different social classes mingled when, for religious, political, or economic reasons, they left England and set sail for America.

Influences That Shaped Colonial Agriculture

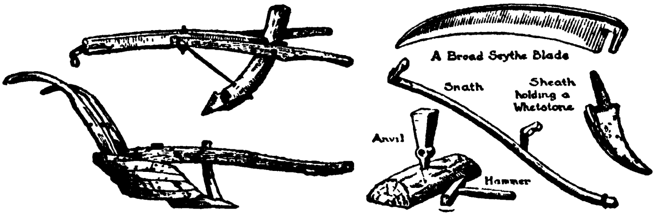
The early colonists brought with them to the New World a knowledge of English agriculture. There were, of course, some artisans and mechanics from the towns who had little or no knowledge of farming. But of necessity almost all had to engage in tilling the soil when they started life anew in America, although in a remarkably short period of time the commercial towns claimed an increasing number of workers, and industries of various sorts were soon established throughout the settlements. As groups from other parts of Europe came to the colonies they brought with them ideas of their own cultures and attempted to re-create them as they fashioned new homes for themselves.

The first type of American farming was, of necessity, subsistence farming. Thrown upon their own resources, with an abundance of cheap lands and in most places fertile soil, the early settlers cleared and cultivated the land, kept livestock on natural grasses, roots, nuts and acorns, and carried on household industries. However, they were forced to live much more primitively than they were accustomed to in Europe. With them they brought not only the earliest tools — the plow, harrow, hoe, rake, spade, sickle, axe and flail — but also the seeds of such grains as wheat, barley, rye and oats; vegetables such as cabbage, beans, peas, and onions; fruits, especially apples, plums, pears and several kinds of berries; farm animals — such as cattle, oxen, horses, sheep, swine, and goats — and poultry of different kinds. The early colonists found many plants that were unfamiliar: maize or corn, tobacco, white and sweet potatoes, pumpkins, squash, tomatoes, and strawberries. Corn, adopted from Indian agriculture, became an all-important crop in every colony; the growing of tobacco, also learned from the Indians, became the economic basis of existence in the South.

While the earlier settlers understood European farming, the stone-tool-using Indians taught them much. They showed the first English pioneers how to kill trees by girdling them — making a circular cut through the bark; how to fell and burn them; how to clear the underbrush; how to fertilize corn and other crops with fish; how to cultivate their virgin fields to the best advantage; and how to preserve corn and other vegetables and fruits by drying and storing them away in caves or pits lined with bark. The row culture of agriculture was first adopted from the Indian; the field system of Europe came with more mature development.

Methods of agriculture throughout the colonial period were, in general, crude. European visitors and observers in the eighteenth century condemned the colonists for their "land butchery," that is, cultivating land year after year until it had become exhausted, without attempting to let it lie fallow or fertilizing it. Instead, new land was taken up when the process of exhaustion was repeated. This was not due to ignorance as many foreign travelers charged, but was natural in a country where land was cheap and labor scarce and dear. The two or three field system of rotation was not used because it meant that large tracts would have to be cleared at one time. The efforts of the first settlers to clear the ground literally of every stump and to provide several fields where a part could lie fallow would have been a misapplication of energy, needed for more urgent tasks. Fertilizers were not used to any great extent, partly through ignorance and partly through indifference. The butchery of the land, however, led to bad agricultural habits and robbed later generations of the wealth of the soil.

Primitive methods of agriculture continued in general use throughout the eighteenth century. The land was broken with a crude wooden plow drawn by oxen or horses. The harrow used to break and level the upturned clods was roughly made of wood in the shape of a V, containing wooden teeth. Grain was sown by hand, cultivated laboriously with crude tools, reaped with a sickle, and threshed with a flail or trod by horses. While attempts were made even as early as the middle of the eighteenth century by plantation owners, ironmasters, prosperous farmers, and a few others to apply scientific principles to crop production and to the breeding of livestock, such instances were chiefly confined to wealthy and highly intelligent men who were familiar with European developments and tried to apply such techniques.



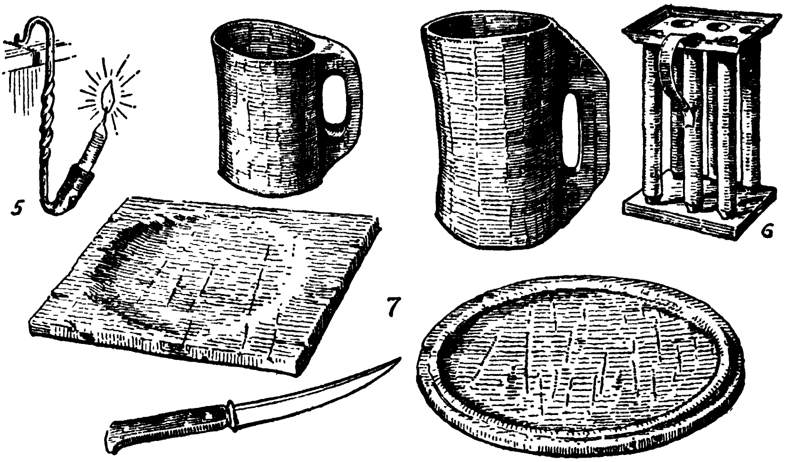
Early American plows

FARMING IMPLEMENTS OF THE EIGHTEENTH CENTURY

New England Farming

The importance of geography in shaping human activities is well illustrated in the settlement of America, especially in the three main regions of the coastal plain — New England, the middle colonies, and the South. The coastal belt of New England is comparatively narrow. This region suffered from the prehistoric Ice Age. In many places it was covered with a deposit of boulders and smaller stones which had to be removed before the land could be cultivated. The soil, not too fertile in many places, and the climate were also factors of importance. Short summers and severe winters prevented the growth of certain crops. Indian corn was the most easily grown and therefore became an important food for man and for beast. The attempts to grow wheat in New England were not very successful, and were given up during this period, except in parts of the Connecticut Valley and the Narragansett region. Barley, oats, rye and buckwheat were successfully raised. English and Indian vegetables and fruits were grown and English grasses, after 1700. Potatoes which had reached Ireland from the West Indies before English colonization had begun were not much used by New Englanders during the colonial period.

Cattle raising in New England developed slowly. To the English breeds were added Dutch strains from New York, Spanish from Virginia, and Danish which were imported into New Hampshire. Oxen were preferred to horses for plowing the stony ground, although horses, which multiplied rapidly, provided a profitable trade with the West Indies. By the time of the Revolution, dairying had become important. Swine adapted themselves rather well to their new environment and multiplied rapidly, resulting in an export trade in barreled pork to the West Indies. Goats were raised largely because of their yield of milk; sheep, although menaced by a harsh climate, wild animals, and Indian raiders, produced sufficient wool to supply local needs in addition to a very poor brand of mutton.



COLONIAL UTENSILS

5. Hook candle holder. 6. Candle mould. 7. Wooden mugs and trenchers

New England farming can be understood only in relation to its land system which was based upon a division known as the town. While the original land-holdings were made individually, later, groups or congregations also secured grants, generally thirty-six square miles in area. Originating in Massachusetts, this plan was applied to many parts of New England as population expanded. The idea of the nucleated village with its meeting house, school, common, and homes in the center of the town, together with the small tracts or strips allotted individually, and the common pasture surrounding the village, was transplanted from the Old World and was the basis for New England's early economic life. The town system was economically inefficient, for a man's holdings were scattered, his cattle kept with the common herd, and he was required to join his neighbors in cultivating crops in the common fields decided upon at the town meeting. In the course of time, as population in the towns increased and the fear of Indians disappeared, the proprietors of the towns divided the lands held in common, and individual holdings or small farms of one piece took the place of the medieval plan. As a result of this early system, New England farms were usually not very large.

Exceptions to the general pattern of land organization could be found at all times and in many places. The outstanding exception to the general scheme in New England was along Narragansett Bay. The Narragansett planters were stock and dairy farmers who lived in the southern portion of Rhode Island. Enriched by their trade with the other colonies and with the West Indies, they established large estates. They owned many slaves, built beautiful houses, and exerted a social, financial, political and cultural influence similar to the planters of the South. After the Revolution, they declined in power and were remembered in later years chiefly by their production, through careful breeding, of the Narragansett pacer, a champion on European as well as on colonial race tracks.

Farming in the Middle Colonies

The land system of the middle colonies played an important part in the development of agriculture of that region. With the exceptions of the large holdings of the Dutch along the Hudson, the estates given by the English kings to their favorites in New York, the gifts of the proprietors in New Jersey and Pennsylvania to their friends, and the plantations of the ironmasters, farms were relatively small. Although at first, William Penn offered 500 acres to each person who would bring his family to Pennsylvania, and was willing to sell 5,000 acre tracts for $100 and give fifty acres for each servant brought across the ocean, farms in Pennsylvania were not large. The same was true in other sections of the middle colonies.

As a result, also, of a more temperate climate, a more fertile soil — except in certain places as the pine regions of New Jersey — and a heterogeneous population, agriculture was superior in the middle colonies to New England. The various racial groups — Dutch, English, Welsh, Swedes, German and Scotch-Irish — introduced their own methods, plants, and livestock. The thrifty Germans led the other groups in their more thorough and skillful ways of farming. Today, the well-kept and profitable farms of their descendants in Lancaster county, Pennsylvania, and elsewhere attest to the industry of generations of a sturdy race.

By the middle of the eighteenth century in these colonies, many farms between the coast and the frontier were fenced, and even meadows, wheat fields and orchards were often enclosed because the livestock were allowed to run at large. Some fences were built of rails, split in halves, quarters or eighths, laid one above the other in zig-zag fashion, the so-called "worm fence"; some were of live hedge, and occasionally some were of stone taken from the fields during clearing. By this period, the "spring house" or "milk house" became a familiar sight in the region. Built usually of stone over a flowing brook or running stream, it was used to preserve milk, vegetables and fruits, and was the forerunner of modern refrigeration. The smoke-house, found on many farms, was a place for smoking meat after butchering. Not far from the dwelling house, which varied from the fairly large stone house to the log and stone cabin, was the barn. Important for the storing of grains, it was used for threshing at harvest time.

While methods were largely primitive, some improvements took place. One practice borrowed from Europe, and more highly developed in Pennsylvania than in any other colony, was that of watering the meadows by conducting streams of water through canals dug along the sides of hills and, wherever needed, allowing the water to run into the fields through small troughs cut into the sides of the hills. Before the Revolution, the horse-drawn seed drill, invented by Jethro Tull in England in the early years of the eighteenth century, was used in this region by advanced farmers, and many ironmasters attempted to apply the crop rotation, horse-hoeing and other improvements that were taking place in England.

The crops of the middle colonies were in general similar to those of New England except that a little less attention was given to corn, and large quantities of wheat were grown. This region became known as the "bread colonies," as wheat, bread and biscuit were shipped to other colonies, Europe, and to the West Indies. In 1775, more than 350,000 barrels of flour were exported from Pennsylvania alone. Among other crops grown were rye, oats, barley, buckwheat, peas, beans, hemp, flax, turnips and potatoes. Tobacco was cultivated in the early years of Penn's colony and at that time became an important article of export, but the growing trade in wheat and flour soon overshadowed it. Varieties of fruit were grown all over the region, but New York became noted for its apples and New Jersey and Delaware for their peaches. Brandy was distilled from peaches, plums, cherries and grapes; applejack and cider became common. Native fruits which grew wild included strawberries, raspberries, dewberries, mulberries, plums, grapes and whortleberries.

Among the livestock raised in the middle colonies were cattle, horses, sheep, hogs and goats. They were introduced from England, Holland, and Denmark, as well as from other colonies. On an average farm about 1750, the cattle numbered four or five although twenty to forty were not uncommon, and a few herds exceeded 100. At this time, each farm usually had two or three horses. On some farms they were bred in large numbers for the West Indies. Beef cattle were also raised for the export trade in meat. During most of the colonial period, cattle suffered from a lack of attention. They were allowed to roam at large to find most of their own food and were rounded up only long enough to be milked. Even in cold weather, they were not kept under shelter, although the best farmers had sheds built near the barn for cattle and sheep as well as slightly constructed barns for horses. One of the most harmful results of the practice of permitting cattle to wander afar was the neglect of the dung which might have been used for fertilizing lands under cultivation. By the time of the Revolution, however, the more enterprising farmers of this region were using stable manure and potash, and also leaf mold and muck from the swamps to fertilize their lands. Lime was introduced as a corrective of soil acidity about the middle of the eighteenth century and gypsum came into use for the same purpose soon afterward.

Farming in the Southern Colonies

The first settlers at Jamestown were not very successful in reproducing the English form of agriculture. Wheat and other seeds that they brought with them grew with amazing rapidity, but failed to germinate into hard kernels. With the aid and knowledge of the Indians, corn became the first basic food crop. While the settlers were making successful attempts to develop a variety of edible products and to engage in manufacturing and industries as they were instructed by the company, they found that tobacco, grown in the Indian way, would bring immediate returns. In 1612, John Rolfe began experimenting with tobacco suitable for commerce, and encouraged by his success, an increasing number of Virginians turned their attention to its culture.

Tobacco was used in Spain soon after early explorers returned with small quantities of it to the Old World. It was introduced into England as early as the year 1565 and in time a demand for it was created there. When Rolfe planted his first crop at Jamestown in 1612 the English people were already expending £200,000 a year for tobacco from the West Indies in spite of the objections of James I to the "black stinking fume resembling the horrible Stygian smoke of the pit that is bottomless." However, James issued proclamations to regulate its trade, and showed no aversion to an income derived from its duties. Small quantities from Jamestown were sent to England during the early years of tobacco growing. In 1619, the first large shipment of 20,000 pounds was made. Within a decade, Virginia was exporting more than 500,000 pounds annually. Its use spread all over Europe as an increasing number of people came to smoke, snuff and chew it, and to use it for its alleged medicinal and curative properties.

Throughout the period many problems in the production of tobacco arose in the South. Inspection systems to guarantee the quality of the exported commodity were evolved; large crops from time to time drove prices down and, in one period after 1680, attempts were made to control production; tobacco had to be sent only to England or to other colonies as it was on the enumerated list and most of it destined for the continent reached there through the mother country. By the end of the colonial period many planters through extravagant spending were seriously indebted to British merchants. The exportation of tobacco suffered throughout the Revolution. Partly as a result of this, a new rival appeared — cotton. The demand caused by the industrial revolution for cotton provided a new and more important economic crop for the South. Not until after the War of 1812 did the production of tobacco reach old levels.

Tobacco brought about the plantation system of production. By the beginning of the eighteenth century, large plantations had taken form. A liberal system of land distribution together with the profits from decades of agricultural exports provided the wealth necessary to build beautiful houses, to secure the best imported furniture, to hire managers and overseers for slave labor, and to organize almost self-sufficient communities. But it must not be imagined that the South at any time was a land made up entirely of large plantations. There were many farms, large and small, where methods and crops were similar to those of northern farms. The production of rice and indigo was concentrated along the Carolina coast. There was much woodland all over the South and, by the eighteenth century, there were tracts of worn-out land lying idle and barren. As the plantation system tended to concentrate wealth in the hands of a small group, class distinctions evolved among the planters, farmers, professional classes of the cities and towns, the artisans, the poor whites, and the Negro slaves.

From the time that the London Company sent a few sheep with the first colonists to Jamestown, there was an interest in sheep raising, especially for their wool. By the end of the seventeenth century, it was common for a planter to have fifty to a hundred sheep. Later, Washington did much to encourage the industry. He owned a flock of 700 to 800. On plantations and farms throughout the South could also be found cattle, hogs, oxen, horses and other farm animals. That section produced much, but not all, of the meat it consumed.

Before the middle of the seventeenth century attempts were made without success to grow rice in the South, particularly in Virginia. In the latter part of the century a brigantine from Madagascar put into Charles Town Harbor with seed rice, which was cultivated in the warm moist lands of South Carolina. From this humble beginning an agriculture grew which exported 1,150,000 pounds in 1775 and produced 160,000,000 pounds of rice in 1850. Rice culture was begun in Louisiana as early as 1718, and was confined to the lower delta of the Mississippi. However, it was not very important in this region until after the Civil War.

During the colonial period, rice cultivation was carried on along the southern coast by impounding rain water and brooks above the inland swamps. After the Revolution, the system of tidal-flowing was introduced. It was in this later period that the sea-island beaches of sea marshes and the back waters of cypress swamps formed the basis for the great rice plantations of South Carolina and Georgia. These will be discussed in a later chapter.

The culture of indigo was introduced into South Carolina early in the history of that colony. In 1723, the legislature encouraged its production by granting a bounty on the commodity. In 1744, Eliza Lucas, of St. Andrew's Parish, proved that indigo could be produced profitably with slave labor. Others adopted the idea, often combining the production of rice and indigo. The production of indigo was further stimulated by the grant of the British government of a bounty of sixpence a pound on all indigo shipped to England. Next to rice, it became South Carolina's chief crop. Late in the eighteenth century the production of indigo declined rapidly. The loss of the British bounty and the development of cotton culture brought about its end, although some was produced for local consumption until the close of the Civil War.

Land Systems

The land system of early New England was based largely upon the rectangular town with the semi-communal village in its center. Individual holdings of land had been granted from the earliest years of settlement, but grants were also made to groups or congregations. In time the common holdings of the proprietors were apportioned among them. Land was also consolidated by purchase and exchange. This movement, together with the direct parcelling of land, resulted in individually owned farms and tracts of land. But New England farms were generally small. The town, however, remained the unit of local administration and provided an excellent illustration of the functioning of a pure democracy. At the town meetings, town officers were elected, provisions were made for new schools, decisions regarding roads and local improvements reached, and other questions of public policy determined. The territorial division known as the county, embracing a number of towns, was not as important as the town in New England in regard to local administration. Its governmental functions included judicial and military activities and jurisdiction.

In the middle colonies, with the exception of some large estates in New York and in Pennsylvania (p. 58), land holdings were not of great size, averaging in 1775 not more than 175 acres. Larger than the ordinary New England farms, they were much smaller than the great plantations that developed in the South. The political organization of land in the middle colonies was extremely varied. The town form of organization characteristic of New England appeared also in New York and was the basis for the township in Pennsylvania, which lacked, however, many of the democratic practices of New England. But the county played a much more important part politically and economically in the middle colonies.

In the South, great tracts of land were granted throughout the colonial period for meritorious work done in England or through favoritism. After the failure of cooperative farming in early Jamestown, land was parcelled out and granted in fee simple. At first most holdings were small but attempts to keep them small failed. From the early days planters were permitted to add to their holdings by buying lands at fixed prices and many took advantage of the opportunity to create large estates in this way. There were times when southern colonies refused to sell land because of the fear of speculation. The "headright" system became important in land distribution in the South although it was used in most of the colonies. It was intended to parcel out small units, but resulted often in adding to the possessions of the wealthy planters. In the South, it permitted a "headright" — usually fifty acres of land — for each person brought from Europe. Indentured servants and others transported proved profitable in this way to the planter. The plan was abused at times. Headrights were bought and sold; false lists of immigrants were compiled; and other forms of fraud added large holdings to a number of colonial plantations. The acquisition of great tracts of land was necessary for the production of tobacco as its culture quickly exhausted the soil, necessitating the frequent use of new land. The political organization of the southern colonies followed the plan of the mother country very closely. The county was the all-important unit; it was divided into parishes. A still smaller political division was the hundred, now surviving only in Delaware.

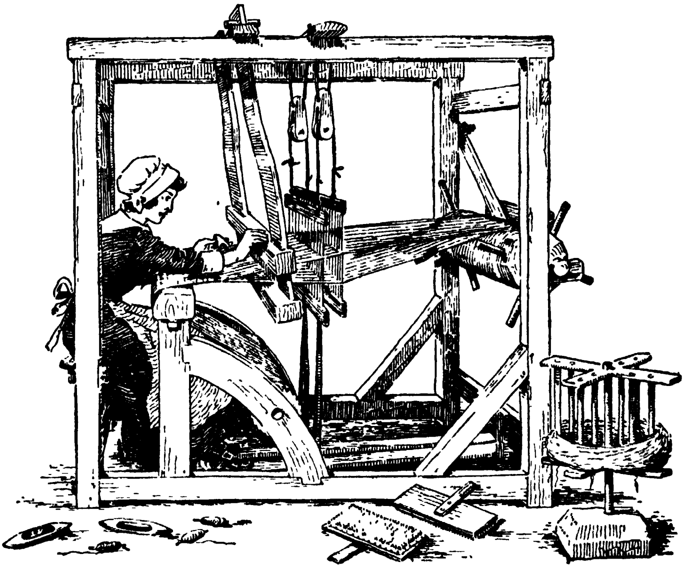
A number of legal practices and customs, whose origin goes back to medieval times, developed in connection with colonial land-holding. The quitrent originated in Europe and at first was a commutation into a money payment of food and labor due the lord of the medieval manor. By the beginning of colonization quitrents were firmly established in England. It was natural therefore that such a system should be transplanted to the colonies. Companies and proprietors were permitted, through rights in their early charters, to require a small amount of money paid annually from all freeholders. Quitrents were also collected in the royal colonies. Because of the system of land-holding in New England the quitrent system did not take hold in that region, but quitrents were nominally due in all other colonies. They were more effectively enforced in Pennsylvania and the southern colonies than anywhere else. The annual amount required varied from place to place and from time to time, but generally was from two to four shillings per hundred acres of land. Because the quitrent was a feudal inheritance and also because of objections to an annual payment — even though nominal — on lands held in fee simple, it was difficult to collect and it became a frequent source of irritation as well as a constant problem in the colonial assemblies.

Primogeniture, the exclusive right of inheritance by the eldest son, existed in some form at different times in all the colonies. In New England, except Rhode Island, opposition reduced this practice, so that by the Revolution it had practically disappeared in that region. In Massachusetts, for example, a law of 1641 provided that all children should share equally in an estate, except that the eldest son should receive double portion. In the southern colonies and to a certain extent in New York, where economic and social forces favored the holding together of large estates, primogeniture prevailed, but even here, in order to defeat the law, occasionally subsidiary plantations or estates were provided for younger sons. In all the other colonies, it was the general practice but in the middle colonies, as in New England, it was widely regarded as alien and undesirable, and plans were often used to defeat it.

The law of entail, which vested the title to an estate or property in a future heir so as to prevent its sale or disposal, became fairly common in the southern and middle colonies. At the same time, opposition was constant on the ground that it perpetuated in America a landed aristocracy. As might be expected, the practice was weak in New England and strong in the South. Virginia abolished entail in 1776 and the other states followed. These practices — quitrents, primogeniture, and entail — an inheritance of feudalism, came to an end with the Revolution or in the years that followed as a new nation began to develop and thrive. In more recent times entail has reappeared in a few states.

Colonial Labor

The need for labor is great in any new country where forests must be cleared, dwellings and barns erected, roads and bridges built, fields cultivated, and commerce and fishing expanded. This was true throughout the colonial period and labor — both common and skilled — was always scarce since workers, seeking independence, took up lands of their own. Colonial labor consisted of the family itself, free laborers and artisans, indentured servants and slaves.



A Colonial Loom

The family was the chief source of labor supply and the needs of colonial economy required large families. Early marriages and many children were the rule, although infant mortality, disease, and medical ignorance and superstition resulted in a heavy toll of life among women and children which offset somewhat the exceedingly high birth rate. From ten to twelve children in one family was not unusual. Of necessity the death of the mother meant a quick re-marriage for the father. Colonial life centered in the family and each member had his tasks to do. In addition to accomplishing necessary work, boys and girls from an early age were given a valuable training in diligence, perseverance, skill, and self-reliance. Educational programs today which include manual-training, domestic-science, household-arts, and shop courses are attempting to supply training that was given in the home in an earlier epoch.

A second source of labor supply was indentured servants. They were used in all colonies and during the first half century they constituted the chief labor supply in the South before they were displaced by Negro slaves. Not only were they employed as agricultural workers, but also as household servants, shop workers, and even in the production and manufacture of iron, chiefly in the northern colonies. Indentured servants were of two classes — voluntary and involuntary. The former, poor emigrants who came of their own free will, bound themselves for a term of years to merchants, planters, and farmers, who imported them. Sea captains and speculators also brought indentured servants to the colonies in return for their passage across the ocean. On arrival at a colonial port, the servants were "sold" to the highest bidder by the captain or speculator who was thus reimbursed. An indenture was then made between master and servant. The term "redemptioner," although used loosely, usually meant those indentured servants who did not bind themselves beforehand, but were given transportation with the understanding that on arrival they would be "sold" to someone who would pay their passage. At first most servants were English, but in the eighteenth century large numbers of Germans and Scotch-Irish entered the country in this way.

Involuntary indentured servants included kidnapped persons, political and religious offenders, and criminals. Many boys and young men, shanghaied and rounded up in the taverns of Bristol and other seaports, were spirited away on ships bound for America and forced into this limited form of slavery. In this way, during the political and religious struggles in England, political offenders were banished for a term of years. Counterfeiters, robbers and murderers were often sentenced to "His Majesty's plantations" in America and were a menace to the colonists; many, of course, began life anew and in their new environment made good citizens. Although these servants were shipped to all the middle and southern colonies, Maryland received more than its share.

The terms of service as specified in indentures made between master and servant varied from three to seven years. For political and religious offenders as well as criminals the term was often extended to fourteen years. A body of colonial laws regulated the treatment of indentured servants and set forth the duties and responsibilities of both master and servant. In most cases, the servant had to be provided with clothing and equipment, and at the end of his term of service was often given land grants or warrants, and sometimes tools or supplies to begin farming.

Free laborers and artisans were a third type of labor. Although relatively small compared with the other groups, this class was extremely important, for it included the skilled workers as well as the unskilled. From the beginning of settlement, mechanics and workers, such as tanners, carpenters, masons, and weavers, came to the colonies. Many became farmers, but others plied their trades in the rising commercial towns and in the boroughs and villages. Throughout the period, artisans were attracted from Europe by the relatively high rate of wages. Others were brought over by planters, ironmasters, and by proprietors. Among large groups imported were the German workers of Alexander Spotswood of Virginia in 1714. Most remarkable was the importation of 535 men and their families from England and Germany in 1765 for the New York and New Jersey enterprises of Peter Hasenclever, which included ironmaking, the manufacture of potash, and the production of hemp, flax and madder. Although brought under contract, Hasenclever's workers were not indentured servants, for they were free and were paid daily wages.

Within the towns and boroughs a plan faintly resembling the guild system of Europe slowly took form in many trades. Apprentices and journeymen were to be found in most trades and manufactures. In the case of apprenticeship an indenture, drawn up before a magistrate, specified the duties of the boy and the obligations of the master. The latter usually promised to feed his charge, teach him the specified trade under the direction of a competent journeyman, and have him instructed in reading, writing and arithmetic. When the apprentice became of age or finished his work he was to receive a new suit of clothes and a small sum of money to buy a set of tools. The apprentice then stepped into the ranks of journeymen and joined the artisans of his trade.

After the middle of the seventeenth century, Negro labor slowly became all-important on the expanding southern tobacco plantations, but slaves were used in all the northern colonies as well. Slavery, which had died out after the decline of the Roman Empire, was reintroduced into Europe by the Portuguese at the time they were pushing their sailing craft southward among the islands off the African coast. During the sixteenth and seventeenth centuries, as distant lands were colonized, the slave trade flowed westward in ever-increasing proportions to reach its height in the late eighteenth century, when overcrowded markets, decreasing profits, and the rising philosophy of the rights of man brought about philanthropic efforts to check it. But not until the nineteenth century did they become effective enough to wipe out entirely the trade in slaves and finally slavery itself.

The history of the Negro in what is now the United States began in Virginia in 1619 when a Dutch vessel, manned chiefly by Englishmen, stopped at Jamestown and sold the colonists twenty Negroes captured from a Spanish frigate. At first, they were used as servants — not slaves — and the number increased very slowly. In 1648, there were only 300 Negroes in Virginia and as late as 1671 there were but 2,000 slaves compared with 6,000 indentured servants in that colony. Ten years earlier, in 1661, slavery was made an established institution by act of council in Virginia, which set the pattern for servitude in the other southern colonies.

Slavery did not develop very rapidly in the mainland colonies because of the lack of a supply of slaves. During most of the seventeenth century, the Spanish, Portuguese and especially the Dutch monopolized the trade and did everything possible to keep the British from the African trading stations. The English slave trade grew very slowly. The high cost of slaves also prevented the immediate adoption of slavery in the seaboard colonies. In spite of these difficulties, as early as 1637, the first American slave ship sailed from Marblehead, Massachusetts, and in the years that followed a few New England vessels engaged directly in the slave trade. The victories of England over the Dutch early in the period of the Restoration had important results for all types of British commerce. The monopoly granted by the Crown in 1672 to the Royal African Company to carry slaves between the African Gold Coast and the British colonies put a legal end for the time to colonial ventures, although there were colonial violations. When the company lost its privileged position toward the end of the seventeenth century, American and English shipowners entered the trade, which brought large profits to the New Englanders and increasing prosperity to shipowners and merchants in Bristol, Liverpool and other English seaports. The Asiento, secured from Spain under the terms of the Treaty of Utrecht (1713), granting a monopoly in carrying slaves to the Spanish colonies, gave an added impetus to the British slave trade, although the English government gave the South Sea Company the exclusive right to sell the 4,800 slaves a year for thirty years in the Spanish colonies in return for $200,000 paid to the Spanish Crown.

Slavery was legalized in New England as early as 1641; later, other colonies followed. The Puritans, after many unsuccessful attempts to put the northern Indians to work for them, turned to the Negro. In all the colonies such labor was used. But it was in connection with the plantation system of the South that large numbers of slaves were necessary and also highly profitable. In the North, they were put to work as household servants and could also be found in the craft shops of the towns and boroughs, and even in many ironworks. The exact number of slaves imported into the American colonies can never be known. However, it has been estimated that in 1775 there were more than 400,000, who lived along the Atlantic seaboard, distributed as follows: 15,000 in New England; 32,000 in the middle colonies; and the rest in the South: 165,000 in Virginia; 110,000 in South Carolina; 75,000 in North Carolina; and 16,000 in Georgia.

TOBACCO THE WEALTH OF EARLY VIRGINIA

CHAPTER IV

Colonial Industries and Manufactures

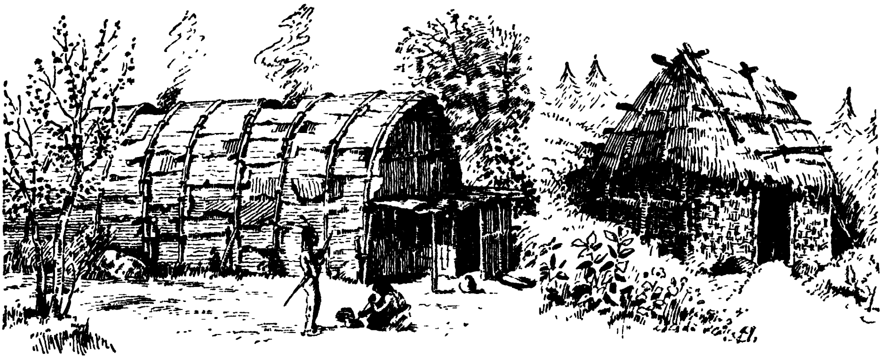
Erection of Houses and Public Buildings

Simple though colonial society was, its activities were varied. Changing political conditions; racial and linguistic developments; religious influences and adjustments; social transformation to a new environment; the adaptations of agriculture to meet new conditions; and the growth of industry, trade, commerce, arts and crafts, present a society of striking diversities. This was especially true of industrial and manufacturing activities to which this chapter will be devoted.

Of course, one of the chief concerns of the earliest settlers was to build homes. Many of the first ones were temporary — caves and hillside shelters, and even tents of sailcloth or canvas. Some cone-shaped huts of branches covered with rush, sod, bark, clay or mud, were built cooperatively. The Indian term "wigwam" caught the imagination of the English and they applied it to their huts, many of which were patterned after those of European shepherds and charcoal burners. A few, however, were similar to Indian wigwams, covered with bark, rush-mats, or hides obtained from the red man.

Temporary habitations soon gave way to frame houses, and to houses of brick and stone. These were crudely patterned after those of the homeland. Dwellings of hewn oak timber and thick sawn planks were well established in medieval England, although many Elizabethan houses were partly covered with plaster. But as English forests were depleted, more and more English houses were built of brick and of stone. Early in Jamestown and Massachusetts, following the English pattern of timbered dwellings, "well framed houses" were erected, although the first ones were built of split clapboards, nailed directly to the hewn oak studding. Roofs were first made of straw-thatch or plain wood; windows were usually of oiled or greased paper; the earliest chimneys were of wood daubed with clay. Chimney bricks were made in Virginia as early as 1612 and a kiln was erected in Salem in 1629. Bricks were also brought across the ocean, and used in the beginning for chimneys and fireplaces, later for building homes. Lime for making mortar was obtained from limestone beds, as in Rhode Island where Roger Williams made lime a trade commodity; it was also obtained from oyster shells along the shores of many settlements. By the eighteenth century an increasing number of brick houses appeared. As a result, brick-making thrived and bricks became a commodity in intercolonial trade.

Stone houses appeared in sections where good limestone was available, as in the middle colonies, especially in Pennsylvania. The Dutch, German, and English settlers used much stone so that today eastern and southern New York, New Jersey and eastern Pennsylvania are still dotted with sturdy colonial stone dwellings and barns. At first, rubble, or rough, unhewn stones, was the only form of masonry, but in time, ashlar, or squared and evenly cut stone, was also used in building.



Long House of the Iroquois Indians and an Early English Shelter

Log cabins were first built by the Swedes who made an unsuccessful attempt to found a New Sweden on the shores of the Delaware. This form of dwelling was of Swedish and German origin and was used by some Germans in the middle colonies in the late seventeenth and eighteenth centuries. Its use spread slowly throughout the back country. By the time of the Revolution and in the period that followed as the westward movement got under way, the log cabin became the typical dwelling of the frontier and a symbol of the struggle with the wilderness, of the individualism of the frontiersman, of a rising democracy, and of limitless opportunities.

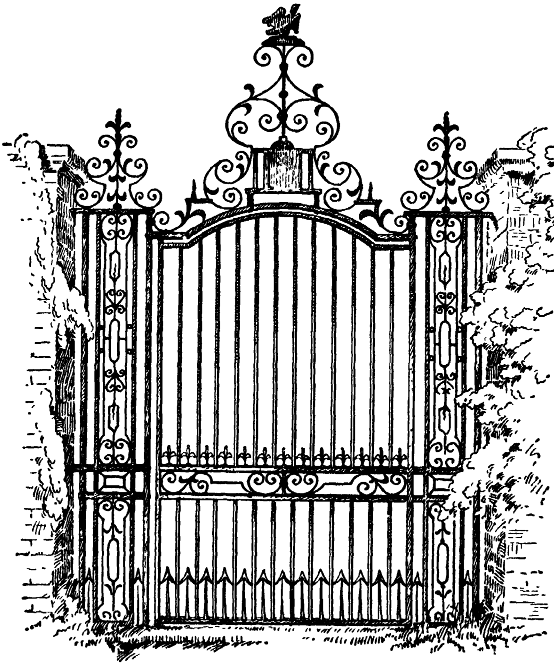
Naturally the Dutch, Swedish, German and English settlers sought to reproduce the architecture of their homelands. The low Dutch stone houses, with their double-pitch steep roofs of shingles, and exaggerated overhang of eaves, often curving slightly upward to prevent an appearance of top-heaviness; the steep roofs, clustered chimney stacks, second story over-hang, and exposed beams of frame houses in New England; the early gabled houses in the South; and the plain stone cabins or stone houses of the Germans, were based on ideas brought from regions where the settlers had lived in the Old World. All these designs were modified in America by a lack of money, a dearth of professional architects, and by other conditions of a new environment. The predominance of English influence, however, is seen in a colonial style, the Georgian, patterned after the most distinctive homes of England at this time. As the merchants of the commercial towns, the southern planters, and the ironmasters of the North became more prosperous, the more informal type of house gave way to the spacious Georgian or colonial mansion, varied in detail to meet local ideas and needs.

The Georgian mansion reached a height of splendor in eighteenth century America. Beautifully-carved doorways and many-paned windows were characteristics. Within, magnificent staircases, decorated mantels, carved wainscoting and detailed paneling bore witness to the skill of colonial workmen. In the South, many mansions were adapted to warm weather. The wide transverse hall with doors opening at both ends, the detached buildings for kitchen, laundries and office, planned as a symmetrical whole, made for greater comfort, privacy, and convenience. In the North, the broad halls and spacious rooms were built more compactly because of the need for heat in winter. The kitchens and laundries, therefore, were usually in the main house. In all types of homes, the broad, open fireplace provided facilities for cooking and spread warmth in winter to the family group gathered about its cheerful glow.

In the erection of such public buildings as capitols, court houses, market places and churches, European influences were naturally strong. In Williamsburg, the robust Renaissance architecture of Sir Christopher Wren was followed; in the Pennsylvania State House (later Independence Hall), and in Christ Church, Philadelphia, the simpler dignity of the early Georgian period stands out; in New England, the tall-spired meeting house, and in the South, Anglican churches, were patterned after English models. As there were few professional architects in the colonies, designing was done by master carpenters or carpenter-architects. Many gentlemen, like Andrew Hamilton, the distinguished lawyer who planned the building where the Declaration of Independence was later adopted and signed, became proficient in architecture, studied as an avocation. Their libraries contained books by the English architects, Wren and Jones, and by the Italian, Palladio. In the later period one of the most influential books was William Halfpenny's *Modern Builder's Assistant* (1747).

Lumbering Industries

Vast forests provided timber and lumber used in building and in many other industries. New England was rich in great forests of white pine, cedar and spruce; the middle colonies in white pine, spruce, fir, hemlock, and in such hardwoods as beech, birch, cherry, walnut and chestnut; the southern colonies in yellow pine and cypress. In various regions white and red oaks and maples flourished.



WROUGHT IRON GATE AT WESTOVER, VIRGINIA, SIDE ENTRANCE

Redrawn from Albert H. Sonn's *Early American Wrought Iron*

Sawmills were introduced early into Maine and then into other settlements. By 1706, there were about seventy operating along the Piscataqua River alone. At first they were used for soft timber of moderate dimensions. A straight saw, moved up and down by a crank attached to a water wheel, was the first type. Improvement came with "gang saws," where several parallel saws were set in one frame designed to cut a tree trunk or a piece of timber into several boards at one time. (The circular saw was not used until the nineteenth century.) Hundreds of sawmills were established during the colonial period, the large ones at the fall line of the rivers. Water wheels were made larger and saws stronger but no further improvements in technique were made at this time.

The lumber industry was relatively free from imperial restrictions throughout most of the period, although English laws provided penalties in New England, New York and New Jersey for felling trees which had been marked with a broad arrow by the surveyors of the "King's Woods," and were intended for masts for the royal navy. Because these laws, the subject of controversy from time to time between British officials and the colonists, were not well enforced, they interfered little with the industry in a country where timber abounded. However, in 1766, lumber and timber were enumerated and had to be shipped only to England, thus destroying the profitable market in southern Europe.

Shop industries in cities and towns utilized many different kinds of wood. Coopers flourished during the period, for there was a constant demand for wooden barrels for flour, biscuit, meat, fish, cod oil, whale oil, molasses, rum, turpentine, tar, and pitch. Hogsheads, casks, and pipes were used as containers for wines. Barrel staves, barrel heads, and hoops became important articles of commerce. White pine, spruce, cedar, oak and fir were cut for use in building ships and houses. Cherry, birch and walnut provided much of the wood for furniture and gunstocks, red maple for spinning wheels, handles, and wooden tools.

Simple lumbering operations were carried on by farmers in all sections, especially during the winter months. The larger sawmills were owned and operated by a number of partners who engaged in no other work and often employed laborers to work for them. Like shipbuilding, lumbering was financed partly by British capital advanced in the form of goods or credit in return for lumber. By the last half of the colonial period, merchants and land speculators turned their attention to this profitable industry. Men like Mark H. Wentworth and Elisha Cooke were the progenitors of the lumber kings who appeared in a later period of American history.

Shipbuilding

The building of ships became an exceedingly profitable industry. While vessels were built in all the colonies, New England and the middle colonies were heavy producers of all types of seacraft. The southern colonies attempted to stimulate the industry by the payment of bounties, but not with any great success.

As early as 1614 Captain John Smith and his companions built several small fishing vessels on the coast of Maine. With the coming of the Puritans to Massachusetts Bay Colony, shipyards quickly arose, the chief impetus coming at first from the fisheries, but very soon from a thriving commerce. In the middle colonies the industry was begun by the Dutch in New Netherland and after English occupation, shipbuilding, centering in the city of New York, grew rapidly. After Penn's province was established, Philadelphia became the chief scene of shipbuilding activity in that region, although shipyards could be found all along the Delaware River.

Colonial shipyards were usually established on a conveniently sloping shore or beach. Each had its rough shipways with ample space to pile lumber. A few crude sheds provided the necessary shelter for drawings, plans, tools and other materials. The noise of nails and spikes being driven into the hulk of a new vessel along with the incessant hammering of the caulkers' mallets often gave the name of "Kockers' Hole" or "Bedlam" to the shipyard sections of the towns. In the early days small vessels were built in the forests and were rolled on tree trunks to the water's edge. In the late colonial period boats were even built in inland cities like Reading, Pennsylvania, and sent down the rivers to the sea. Vessels varied in size from ten to 400 tons and were of such differing types as ships, schooners, sloops, brigantines, and brigs.

Materials other than lumber were used in shipbuilding and various dependent industries accordingly sprang up. Iron in quantity was necessary for spikes, nails, chain plates, rudder iron, and anchors. This work was done by blacksmiths and other ironworkers, who found permanent work near, or in direct connection with the shipyards. Anchors were often produced separately at anchor forges.

Sailmaking was carried on at first by journeymen workers for shipbuilders or merchants. However, as governmental bounties and premiums encouraged the raising of flax and the production of duck, sailmaking developed as a separate industry before the eighteenth century. In the huge old sail lofts, with their smooth surfaced floors, sail patterns were drawn with chalk and yards of canvas were cut and sewn. At the large shipyards, sailmakers and riggers worked in unison to add the sails and ropes as soon as the hulk and masts were ready for them.

Vast quantities of rope for the ships were made first at the open-air ropewalks, and later in crude sheds. These long, drafty sheds, sheltering wooden wheels and cranks and cordage in various stages of manufacture, were relegated to places outside town because of the danger from fire. Generally, hemp and flax were used in ropemaking, although experiments were carried on with all sorts of long grasses. The products of the ropewalk, all made of twisted fibers — string, cord, rope, hausers, and cables — were classified and graded.

Jumbled around the shipyards and wharves of colonial seaport towns were little shops where hardware and other supplies could be bought. From these developed the ship chandler's store where marine equipment of all kinds could be obtained, including anchors, oars, pulleys, blocks and tackle, casks, buckets, capstans, pumps, lanterns, rope, and helms.

By 1676, a total of 730 vessels had been built in Massachusetts and hundreds of others elsewhere in New England. On the eve of the Revolution, New Englanders owned 2,000 vessels exclusive of fishing craft and at the same time almost one-third of the vessels engaged in the commerce of Great Britain had been built in the colonies. The shipowners were largely merchants and fishermen. Many captains became owners or part owners of vessels, but the cleverest retired and conducted their mercantile activities from the towns. In the middle colonies, shipbuilding was second to that of New England and many vessels were sold abroad. In the South, shipbuilding did not thrive. A survey of 1769 revealed that only twenty-two three-masted or square-rigged vessels and fifty-one two-masted and one-masted vessels were built there in that year and that the total tonnage was but 4,059 tons.

Naval Stores and Forest By-Products

Closely allied to colonial shipbuilding was the production of naval stores for England. One motive for founding and maintaining colonies was to free the mother country from dependence upon the Baltic countries for materials needed in building her navy and mercantile fleets. Timbers for masts, yards, and bowsprits, together with such naval stores as tar, pitch, rosin and turpentine were included in the cargoes of many vessels sailing to England.

Beginning with early Jamestown, all colonies contributed naval stores to the mother country, but by 1720 the long-leafed pine section of North Carolina became the chief producer of these materials. In 1705, when the danger of English dependence upon Sweden and other northern countries for naval supplies became more obvious and threatening, England granted bounties on American naval stores. The law provided a bounty of £1 a ton on masts; £4 a ton on pitch; £6 a ton on hemp; and £3 a ton each on turpentine and rosin. The act, although modified somewhat in the reign of George II, greatly stimulated the production and export of naval stores especially from the southern colonies. In the northern colonies, more would have been sent to England had not the colonists themselves used such material in shipbuilding.

The naval stores industries were based largely on the pine forests. Tar was obtained from dead pines, especially from the protruding knots of rotting logs. Different methods were employed in various regions, but whether pots, kettles, sloping clay floors, or kilns were used, the principle was the same — the tar was sweated out and was run into barrels. The heavy residue that remained was pitch, also an important commodity. Turpentine was easily secured in quantities from pines. Hard rosin, amber-colored to almost black, was left after distilling the volatile oil of turpentine.

From the forests other products were obtained that have been since largely forgotten in the march of progress. In the hardwood areas, the manufacture of potash and pearlash proved profitable. Potash was obtained by burning the wood; by leaching or running water through the remaining ash; and finally, by boiling the water away until a powder remained in the form of lye. When potash was baked again to burn out the carbon, it became the more refined pearlash. Both of these products were in demand in England as well as in the colonies for bleaching cloth, in making soap and glass, and for fertilizer.

In many places in New England and the middle colonies the potash industry centered in village shops, which bought wood ashes from neighboring farmers. From the earliest days, farmers thus obtained a small income from clearing their lands. The amount of potash exported annually from New England alone in the year preceding the Revolution was estimated at 14,000 barrels, at £2–10 a barrel. Much, of course, was also used in this country. The bark of oak and other trees — another forest by-product — used in the tanning of leather, became increasingly important as leather-making developed.

The Fur Trade

The trade in furs and skins along the coast of North America began when the first explorers and fishermen made contacts with Indians, long before the English colonies were established. A realization of the importance of the trade gave some impetus to colonization. As permanent settlements were made, the pelts of the beaver, otter, fox, raccoon, mink, muskrat, and other fur-bearing animals provided the needy colonists with an income. In early Plymouth, the fur trade was largely the means of existence for some years, while in New Netherland, the Dutch West India Company enjoyed a monopoly of the trade. The settlements of New France in the interior depended on the fur trade and the French-Canadian *voyageurs* or *coureurs de bois,* the unlicensed traders, added a most colorful romantic touch to the industry.

As the coastal plains became populated, fur-bearing animals became scarcer in that area, and trappers and traders began their long treks across the mountains into the West, blazing the way for the missionaries and explorers. In return for knives, firearms, axes, hatchets, fish hooks, kettles, trinkets, blankets, munitions, English rum and French brandy, they secured valuable furs from the Indians. Rivalries between the French and English traders were intense. The traders suffered from cold and hunger, the dangers of the forests, torture and death if captured by hostile Indians. Small firms and partnerships formed at important trade centers in the East provided the traders with exchange commodities for the Indians and markets for the furs.

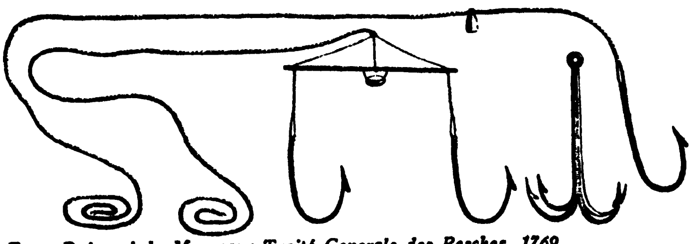
While many individuals and partners participated in the trade during the colonial period, one great monopolistic English company stood out in the North — the Hudson's Bay Company, which came into being as a result of the western explorations of the imaginative Radisson and his brother-in-law, Sieur des Groseilliers. Chartered in 1670, this company established many posts in what is now Canada. In time it extended its authority into the northern regions of the present United States. The development of a number of large fur-trading companies did not occur until after the Revolution.

In the constant rivalry between the English, Dutch, Spanish and French, the fur trade played many roles, diplomacy not being the least. In the great duels of the colonial period between England and France, which in 1763 finally gave England North America and ousted the French to a few Atlantic islands, the fur trade, together with the fisheries and the question of land ownership, were important subjects of dispute. In this struggle during two centuries for colonial and commercial supremacy four wars were fought: King William's War (1689–1697), ended by the Treaty of Ryswick; Queen Anne's War (1701–1713), known in Europe as the War of the Spanish Succession, which was concluded with the Treaty of Utrecht, giving England among other things Newfoundland, Nova Scotia, and the Hudson's Bay Region; King George's War (1744–1748), having a counterpart in Europe known as the War of the Austrian Succession; and the French and Indian War. The last named war, begun in the colonies, led to a world war — the Seven Years' War (1756–1763), which resulted in the downfall of the French Empire and the supremacy of England in North America.

The Fisheries

More than a hundred years before permanent English settlements were made, European fishermen — especially Spanish, French, Portuguese, and a little later English — crossed the Atlantic regularly to fish off the Newfoundland Grand Banks. All the early explorers to this region noted the presence of cod and other fish in the waters of Newfoundland, Labrador and New England. On islands and along the coast line of the mainland early fishermen set up fish "stages," the platform on which the curing was done; and "drying flakes," the

PREPARING FISH FOR MARKET



From Duhamel du Monceau: Traité Generale des Pesches, 1769

FISHING LINES USED TO CATCH COD

wooden frames for drying the fish in sun and air after the cleaning process. They established temporary settlements to which they returned from time to time; and in the pursuit of their difficult tasks, they became familiar with a part of the New World and prepared the way for the settlement of New England.

While the Pilgrims sailed with high hopes and a burning faith, they had a few definite ideas of how they were to make a living. After sad experiences, they learned the secrets of fur trading and fishing in addition to planting fields of corn. Many leaders of the early Puritans, who came in much larger numbers than the Pilgrims, first attempted to develop landed estates, tilled by tenants and hired labor. They soon failed and free villages and the town system sprang up instead. From the beginning many in the Puritan colony were attracted to pursuits of the sea. In 1639, Massachusetts Bay Colony exempted from taxation for a period of time all vessels and property used in the fisheries; shipbuilders and fishermen were relieved from military duty. Fishing and commercial activities became the chief sources of wealth in Massachusetts and within a short time in other parts of New England as well.

The early catches of fish in this area were vast quantities of cod, haddock, hake, mackerel and pollack. Cod was valuable not only for its direct food value but also for its oil. Fishing was done by groups of men in small vessels. Each member of the crew — master or steersman, midshipman, shore man, and fisherman — had his own particular duties. Salem, Gloucester and Marblehead became important fishing centers, but fishing villages could be found all along the coast. At first, capital for the industry came from English merchants, but, as New Englanders grew prosperous, they invested their profits obtained in commerce and trade. By the eighteenth century small groups of merchants and others who had accumulated capital owned a large part of the fishing fleets, wharves, stages and supplies. In many villages groups of fishermen jointly owned their vessels and equipment.

In spite of rivalries with the French, intermittent warfare, and problems within the industry, the fisheries made rapid progress. In 1700, about 10,000,000 pounds of fish were exported from New England. By 1765, many thousands of men were employed in the industry which yielded $2,000,000 a year, while more than 350 vessels were engaged in the export of fish to the West Indies and Europe.

As was the case with the fur trade, the fisheries played an important part in international intrigue and diplomacy. England continually exasperated the colonists by failing to consider the importance of the

American fisheries in treaties made with France. From St. Germain (1632) to Ryswick (1697), colonial interests were not well protected and the French benefited. The colonists were particularly bitter in 1697 when Acadia (Nova Scotia), although captured by the Americans, was returned to France. The Treaty of Utrecht (1713) gave Nova Scotia and Newfoundland (as well as the Hudson's Bay region) to England, but France retained the island of Cape Breton and certain fishing privileges. As a result of the defeat of France in 1763, the only fishing islands left to that nation were St. Pierre and Miquelon in the St. Lawrence. She also retained her islands in the West Indies. The victory of the colonists, however, was dampened in respect to the fisheries, for the enforcement of the British Sugar Act of 1764 threatened to ruin the profitable trade with the French and other foreign West Indies, which was partly based on an exchange of fish for sugar and molasses. After strong protests, the duties on sugar and molasses were reduced and the threat to the fisheries was removed. In the Treaty of Peace, 1783, granting American independence, was a clause pertaining to the Newfoundland fisheries. John Adams, loyal son of New England, insisted at the peace table that "the people of the United States shall continue to enjoy unmolested the right to take fish of every kind on the Grand Banks, and on all the other banks of Newfoundland," and also in the Gulf of St. Lawrence. But the immediate period that followed was not a prosperous one. The exclusion of American vessels from trade with the British West Indies; the enforcement from time to time of restrictions in the Spanish, French and Dutch West Indies; the contraction of the European market; and the general depression that followed the Revolution brought economic difficulties and distress for some time.

While the New England fisheries have been emphasized because of their importance, it should be noted that there was much fishing along the coasts of the middle and southern colonies, as well as in their tidal rivers. For example, the sturgeon and shad fisheries of the Delaware were important, while rockfish, perch, herring, and also oysters and crabs were obtained in abundance in the Potomac and other rivers. In the fresh water rivers and creeks in all the settlements, quantities of many different types of fish were secured, which were sold chiefly in local markets.

Whaling

Closely related in many ways to the fisheries was the whaling industry. Whaling began as a shore pursuit. When the first settlers built their homes, whales abounded up and down the northern Atlantic seaboard and even the Indians who lived along the coast captured and used them. At Nantucket, which became the great whaling center, they were often stranded on the beach, drifting into shallow water at low tide.

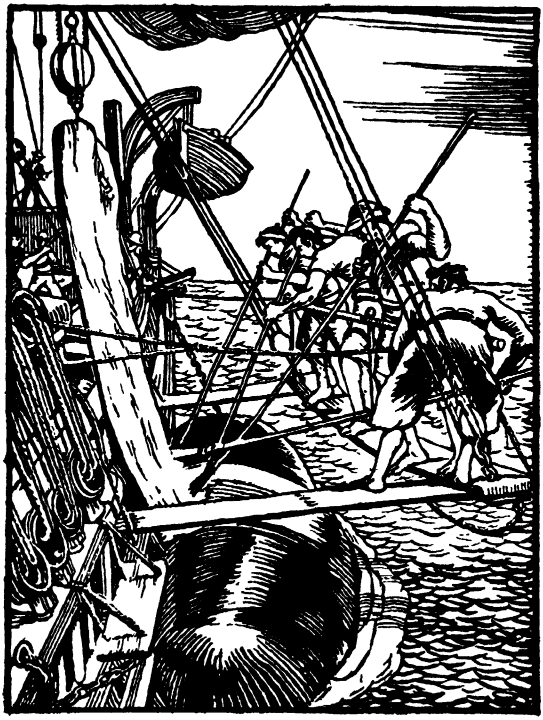
Whales were sought for their products of sperm oil, whalebone, spermaceti, and ambergris. By the first part of the eighteenth century, it became necessary to pursue the monster creatures into the ocean and much later, as they grew scarcer, to seek them in the icy-cold waters of the distant arctic and antarctic regions. As the distance of whale hunts increased, it became necessary to extract the oil on shipboard. Beginning about 1730, "try works" or furnaces were built on the whalers and, after the oil was boiled down, it was stowed away at sea, permitting longer voyages.

The life of the whalers was exciting and dangerous. After the seas were scoured and a whale sighted from the mast-head of the vessel, the eager cry: "Thar she blows!" was given. The ship became a hive of activity. Boats were put overside and manned. To hurl the harpoon by hand meant coming very close to the giant. A crew had to be expert in getting away and in paying out the line or the boat would be smashed by a blow from the creatures' mighty flukes. Frequently a harpooned whale would tow a boat for miles before being subdued and killed.

Whaling was difficult, for after a whale was captured, killed, and "brought alongside," it had to be cut up a little distance above the water. This was done from a platform swung out from the vessel's side, and was extremely dangerous in rough weather. As the parts were hoisted on board, the deck ran with oil and blood. The blubber produced oil used in soap-making, and for lighting and lubricating; the cavities of the head and the blubber yielded a waxy solid substance called spermaceti, which was made into candles and ointments; the jaws produced the strong, light and flexible whalebone, used for corset-stays, whip handles and many articles. Another valuable product obtained from the sperm whale was ambergris, important in making perfumes.

The giant whales were dangerous to hunt and difficult to handle, yet Yankee courage and endurance made the task possible. The longboat might be crushed by a blow from the Leviathan's tail; scurvy was certain to set in after the vegetables had been consumed, for trips were often long, sometimes as much as two years; and occasionally a crew grew dissatisfied and mutinied. However, mutinies were not frequent because a whaling expedition was usually a community enterprise, each member of the crew from captain to cabin boy sharing in the profits.

The industry rapidly expanded after the early years of the eighteenth century when whaling vessels first put out to sea on distant voyages. By the outbreak of the Revolution 360 colonial vessels were engaged in the perilous work. Nantucket, New Bedford, Marblehead and Provincetown in Massachusetts, and Sag Harbor on Long Island were the important whaling ports. There were many other towns and villages along the northern coast dependent upon the industry.



CUTTING UP A WHALE AT SEA

The Revolutionary War brought disaster to a large number of whaling vessels and the War of 1812 also took a heavy toll. Whaling reached its height about the middle of the nineteenth century during the era of the clipper ship. The Civil War, the loss of a great fleet caught in the arctic ice floes in 1871, the increasing use of kerosene instead of whale oil for lighting, and the use of other substitutes for whale products brought about the decline. The old whaling wharves disappeared and only stories and memories remain. Modern whaling operations are conducted in swift vessels and the whale is killed by harpoons shot from guns.

The Flour Milling Industry

The production of flour became a most important industry. Colonial flour mills were of two kinds. First, the country grist mill for a small fee ground grain brought to it by neighboring farmers. Such mills were scattered all over the settlements and were simple affairs consisting mainly of a set of crude mill stones operated by a large water wheel, usually dark and green with slimy moss, which was slowly turned by a stream of water. The machinery was made of wood. A few, in Rhode Island, along the Hudson River, and in one or two other sections of the country depended upon the wind for power. The second type of grist mill was the much larger and more complicated merchant mill, which prepared flour to be sold in the stores of the towns and also prepared flour for export.

The merchant mill possessed a series of mill stones, screens for cleaning the grain, and bolting machinery, all run by water power. This type of mill also possessed warehouses or elevators.[1] In most of these plants, cooper's shops provided the barrels for holding the flour and occasionally bakehouses were attached. While these larger mills often did custom work, their chief business was preparing flour for export. They were most numerous and largest in the middle colonies, especially in the vicinities of New York and Philadelphia, although some of the Virginia mills on the James River and at Petersburg could each grind 75,000 bushels of wheat into flour a year. By the late colonial period, the mills on the Delaware, the Brandywine, and the Chesapeake could be compared favorably with the largest and finest in the world.

Manufacturers of flour embarked in speculative practices to a certain degree even in the eighteenth century. Companies of millers — always partnerships in the colonial period — at times held off purchasing surplus grain from farmers while awaiting a lower market; they kept flour in their warehouses for higher prices; and there are instances when they formed corners in the commodity in different localities by buying the available supply in order to control the price.

Household Industries

Pioneer conditions forced the early settlers to provide for their own needs, including the production of food and the making of clothing, furniture, utensils and tools. The primitive way of life required all members of the family to contribute to its support in an age when self-sufficiency was not only desirable but absolutely necessary. Men, women and children, then, had their tasks in producing the necessaries of life and a variety of household industries resulted.

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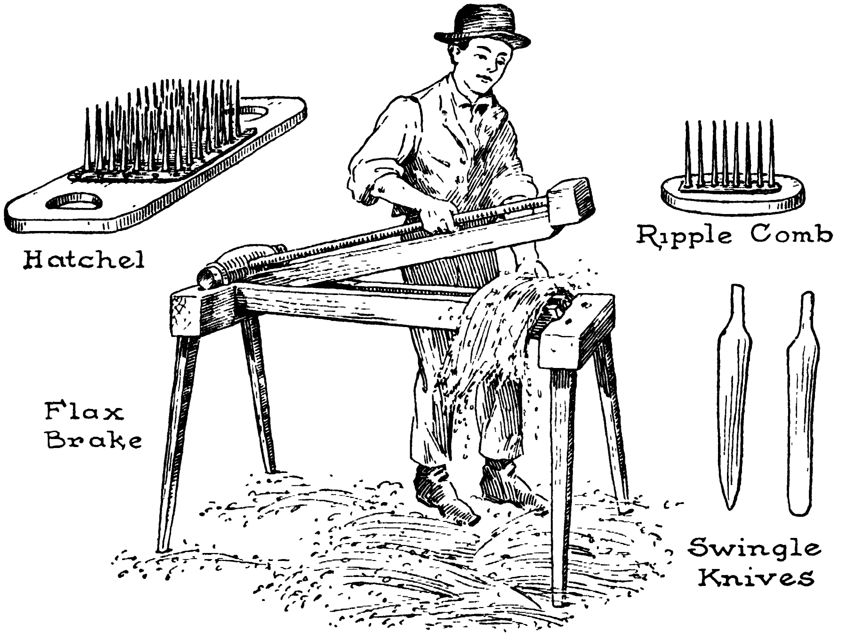
[1] The term "elevator" was used in connection with milling before the middle of the eighteenth century.

In the production of food all participated. The men worked long hours in the fields, but were often helped during busy seasons by the women. But women's tasks included the making of butter and cheese, the rendering of lard, the pickling of pork, the chopping of headcheese and sausage meat, the preserving of foods for the winter, and an endless variety of similar tasks. Meal, hominy, maple sugar, dried fruits, candles, lye and soap were produced in the homes.



PREPARING FLAX FOR SPINNING

The production of textiles was largely a household industry. Imported clothes were expensive and a suit of such material was usually worn only for best. Therefore almost every home had its spinning wheel and hand loom to produce home spun. Rough serges, kerseys, and broadcloth and other woolen fabrics were made into clothes. More important in the later colonial period was linsey-woolsey, a cloth having a wool weft and a flax warp, although hemp or cotton were sometimes substituted for the flax. Of flax fabrics, osnaburgs — coarse cloth for outer garments — were most common, while calico and linens were also made. In addition to garments, other textile goods such as bed linen, tablecloths and towels were produced in the home. In making woolen cloth the processes of carding, spinning, weaving, fulling, dyeing and dressing were employed; for linen, which was made from the blue-flowered flax, such processes as braking, swingling, combing or hatcheling, spinning, reeling, weaving, bleaching and coloring were necessary. Almost all of these processes were carried on by the women and children, with the men helping at times with the harder work of weaving and fulling. A finer fabric was produced by pounding the woolen cloth with large wooden mallets while it was kept wet with warm soapy water to shrink the fibers. This process was called fulling. In addition to being a household industry, it also became a shop industry. Home weavers took their cloth to the fulling mill just as they took their grain to the grist mill, for one mill could serve the countryside. In the dyeing process, indigo which produced a variety of shades was often used. Flowers, such as iris and the goldenrod, were also employed in the making of beautiful dyes, as were berries of different kinds and the bark of red oak, hickory and other woods. Thus the laborious industry of cloth making was largely carried on in the home. On the southern plantations, as well as on the large estates and manors of the North, slaves and indentured servants were commonly employed to do such household tasks.

The men on the farms, like the women, engaged in a variety of tasks. In addition to farm work, including the raising of livestock, butchering and smoking meats, they built and repaired fences, and small bridges, erected barns and other buildings, opened roads, and did many other things, often cooperatively with neighbors. Among the home manufactures on colonial farms must be included the making of crude furniture, tools, implements, wagons, leather, harness, shoes and even nails, which were hammered out at small forges.

Shop Industries

The contrast between the mass of farmers and the small group of the wealthy increased as time went on. Most Americans led the life of hardworking toilers and lived plainly and crudely, yet well. But the relative wealth and position of merchants, planters, and ironmasters together with the increasing influence of the growing professional groups brought a higher standard of living to them. This was especially true of their home furnishings and furniture, much of which — but not all — was imported. Cabinetmakers on this side of the ocean from John Alden of Plymouth in the early period to William Savery of Philadelphia in the later, made up a long list of such artisans, who, by the middle of the eighteenth century, produced chairs, tables, chests of drawers, highboys, lowboys, and other types of furniture equal in most respects to imported articles. American "joiners" or cabinetmakers were influenced in the later part of the colonial period by English pattern books, especially *The Gentleman and Cabinet-Maker's Guide,* of Thomas Chippendale. But colonial artisans injected their personalities and tastes into their work which together with local characteristics produced many distinctions between American and English furniture. Examples of localized styles can be seen especially in the heavy furniture of the Dutch and the gaily painted pieces of the Pennsylvania Germans, but basic and artistic differences could be found in the work of the cabinetmakers of Boston, New York, Philadelphia, Baltimore, Annapolis, Charlestown and elsewhere.

The production of leather and leather goods became important colonial shop industries of the towns, although such activities were also carried on in rural sections. From the earliest days of settlement the tanning of hides and the making of leather products were very necessary occupations in all the scattered communities along the Atlantic seaboard. Tanners were among the first arrivals in many colonies, for they were quick to perceive the unusual opportunities afforded by a new country where all the materials needed in their craft were plentiful, where restrictions on their activities would be few, and where increasing populations would provide an ever-expanding market for their goods. For example, by 1650, in the Puritan colony of Massachusetts Bay there were fifty-one tanners and a lesser number in each of the other colonies that had been settled by that time.

The early colonists discovered that the Indians with whom they came into contact also had a knowledge of making leather, as, long before the white man came, red men had used skins and hides for making hunting shirts and moccasins, as well as for coverings for their wigwams and tepees. For generations the Indians of America had cleaned with knives of stone or bone the hides of the deer and other forest animals; had washed and soaked them in the streams; had scraped off the hairs with tools of stone and wood; had tanned them with the dust of the decaying tree stumps; and had made them soft, supple and waterproof by the use of animal fats. This method, in principle, was the same as that used by the colonists who brought their ideas from Europe, although their tanning processes were somewhat more refined and better understood. They knew more accurately the action of tannin or tannic acid which they secured from the crushed bark of oak, hemlock, willow and other trees. They were also aware of the advantages of smoking the hides as an alternative to the use of lime and water before the skins were immersed for the long stay in the tanning pits, and they used good hard tallow instead of crude raw fats. The basic techniques were the same. But the more highly developed tanneries of the colonist contained vats, limes, water pools, bark houses, currying shops, skin dressing shops, and often facilities for making certain types of leather goods. Leather "fulling" or "beating" where material for garments was made pliable and surfaced was usually carried on in separate shops.

The tanning of leather was no idyllic occupation. Among the maliferous odors of colonial cities, towns, villages and boroughs can be counted the noxious and sickening smells of thriving tanneries. In some places, tanyards were restricted by law or ordinance to certain parts or sections of a community and in a few were banished beyond the town limits. But they could be found in all the colonies.

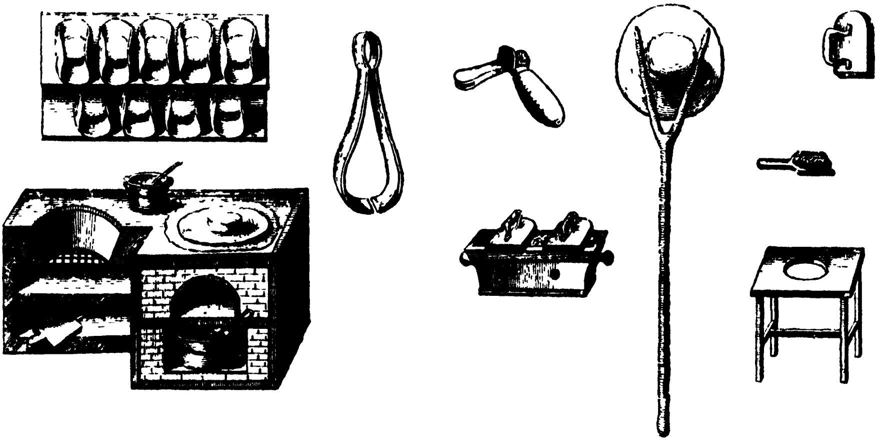
Many colonial laws were applied to the industry. In the latter part of the seventeenth and the early eighteenth centuries, largely through the pleas of shoemakers and other leather workers, several colonial legislatures prohibited the exportation of raw hides and calfskins, while a few placed heavy duties on the exportation of leather at different times. Laws requiring the inspection of leather and prescribing standards in processing were adopted by most colonies. With varying success, attempts were also made by law to maintain tanning, currying, finishing, beating, shoemaking, and garment making as separate trades. English precedents were adopted in establishing these policies. Such laws, however, were difficult to enforce in the New World. By the latter part of the period, small quantities of leather were exported from one colony to another and even to parts of Spanish America.

The making of leather goods was a widespread occupation. The prepared skins of deer and other animals of the forests as well as those of domestic cattle, sheep, and goats were made into various articles. Cowhides and calfhides were used for making boots, shoes and saddlery; bearskins for bedding, robes, blankets, and wraps; deerskins for hunting shirts, pantaloons, coats, and waistcoats, leggings, moccasins and petticoats; the skins of squirrels and beavers for gloves and mittens; and the skins of raccoons, bears, foxes, wildcats, rabbits and woodchucks for caps and hats.

Bootmakers and shoemakers, saddle makers and harness makers established themselves as artisans early in the settlement of the colonies and in all important communities members of these crafts carried on their trade. A few short-lived groups organized themselves as guilds. Shoemaking attained relatively large proportions as shops turned out shoes for export as well as for the local market. Lynn, New Haven, Newark and Philadelphia became centers of the leather goods trade.

In 1767, about 80,000 pairs of shoes were made in the shops of Lynn, Massachusetts; and statistics for the next year show that 13,000 pairs were included in all intercolonial commerce.

Shoemaking was also a household occupation on a large number of farms and shoes were made by itinerant shoemakers who at certain times of the year traveled from place to place. The making of saddles and harness, and all sorts of leather wearing apparel was not confined to the cities, towns and boroughs alone, but was also carried on in lonely farmhouses, especially during winter months.



From Institut de France Academie des Sciences: Descriptions des Arts et Metiers, 1765

HAT MAKING EQUIPMENT

Although colonial tanners even imported skins and exported small quantities of leather, the industry centered in local markets and grew because of local needs. No attempts were made to invest large amounts of British capital in the industry or to foster it by special privilege. Yet it played an important part in early American life.

The manufacture of beaver, raccoon, woolen and other hats, at first largely a household task, soon became a shop industry. By the first part of the eighteenth century, American-made hats were worn by all the colonists except the wealthy who could afford imported hats, although the latter were not of better quality or workmanship than the best hats made in American shops. In 1731, the London hatmakers in petitions to Parliament complained that the shops of New England and New York were ruining their export business to the colonies and were exporting quantities of hats. Parliament adopted restrictive legislation. The Hat Act of 1732 forbade the exportation of hats from one colony to another or to any other country; apprentices were required to serve seven years in the industry; and Negroes were forbidden to work at the trade. The law was largely ignored by the colonists.

Candles were largely made in the homes, but itinerant candlemakers and professional chandlers also engaged in the industry. Tallow dip, made from well-rendered mutton fat, was the most common candle, but bear grease, deer suet, bayberry, spermaceti and beeswax were also used. The last named type of candle was used largely for lighting public buildings, while the sweet-smelling bayberry was generally reserved for special occasions in the home. The task of dipping or molding the household supply in winter months was tedious at best. The wick was fashioned from rough hemp, milkweed or cotton. During the last decades of the colonial period, many shops in the towns produced candles, but candlemaking continued to be a household industry to a certain extent well into the nineteenth century.

About 1750, the manufacture of sperm candles was begun in Rhode Island. In 1761, the chief spermaceti chandlers in the colonies, under the leadership of Richard Cranch and Company, attempted a monopoly by keeping their processes a secret. Through detailed trade agreements they set maximum buying prices for spermaceti; fixed prices at which sperm candles should be sold; permitted no new members without the consent of all; and prevented any competition "by fair and honorable means." They also began to build up a whaling fleet of their own. Their processes in time were learned by others and competition broke the power of this early "trust."

The refined and highly finished art of the silversmith is usually associated with a luxurious civilization, and not with a raw and undeveloped country. Disciples of that ancient craft left the cities of the Old World to carry on their highly developed technical skills in the New. During the colonial period a long line of skillful artisans from John Hull, Robert Sanderson and Jeremiah Dummer to Jonathan Otis, Paul Revere, and the notorious Samuel Casey fashioned silverware that graced the sideboards and tables of early Americans.

It may seem strange that the malleable and ductile silver was worked into objects of shining beauty and intricate design in a pioneer country possessing no silver mines. Some of the silver plate owned by colonists who could afford it came from England, but most of what was produced in this country came from English, Spanish and Portuguese coins obtained largely in the West Indian trade. The balance of trade with England was continually against the colonists and drained the country of much of its money. Americans did everything to prevent coins from leaving the colonies. One way to achieve this was to convert silver coin into silverware. There were no banks in which to deposit money and it became convenient to have it made into plate to be displayed for the admiration of friends and visitors. Plate did not lose its value and, if stolen, could be easily identified provided it were not melted. Furthermore, it could be reconverted into the equivalent of money if necessary. Silversmiths gathered in the commercial towns where wealth was beginning to develop and some could be found in the provincial boroughs and villages. With the introduction of banks and the advent of Sheffield plate, the art of the individual silversmith declined in the nineteenth century.

Pewterers increased in number as the wooden dishes of early days gave way to pewter ware, which at first had been imported. Not until 1750 were large amounts of pewter ware made in the colonies, because tin, the basic metal in its production, had to be imported. Colonial pewter was about 80 per cent tin and 20 per cent copper. Often lead was used as the alloy instead of copper. Sad ware was produced by hammering out the metal into platters and trays; hollow ware, such as tankards, bowls, and even small plates and spoons, was cast in molds of gun metal. Philadelphia, New York, and Boston were the centers where pewter was made. The Revolution brought a demand for metals of all kinds, especially lead, for making munitions and as a result the pewter trade languished. In the period that followed, the use of chinaware and porcelain increased, as changes in the English potteries during the industrial revolution resulted in lower prices and in new types of commodities.

Printing shops arose in most of the colonial towns. The art of printing slowly developed in the seventeenth century. The press of Stephen Daye was set up early in Massachusetts Bay Colony and slowly others appeared in the colonies. The books and pamphlets produced by the early American printers were decidedly religious in character. By the eighteenth century all colonies had printing shops which issued almanacs, broadsides, tracts and sermons. Newspapers and documents were also their product. Among the outstanding printers besides Daye might be mentioned William Nuthead whose shop was suppressed by Governor William Berkeley of Virginia, and who then moved to Maryland to carry on his activities; William Bradford, who established a printing office in early Philadelphia and, wearied by religious and civil interference, moved to New York; and the famous Benjamin Franklin, who printed the *Pennsylvania Gazette, Poor Richard's Almanac,* and many other types of publications.

In 1690, William Bradford, the printer, joined David Rittenhouse, a Dutch paper maker, in erecting the first paper mill in America on the Wissahickon Creek near Philadelphia. Others followed closely. In 1756, the first pulp engine was introduced from Holland; then the number of paper mills increased rapidly. Colonial paper making entailed the reduction of rags to a pulp, which was then pressed and molded in a variety of fine-meshed wire molds from which the paper derived its texture. The use of wood pulp in paper making came much later.

Bookbinding, "the art of arranging the pages of a book in proper order and confining them there by means of thread, glue, paste, pasteboard and leather," became a relatively important shop industry. Stamps, dies and other tools, as well as presses were used by skillful bookbinders. From the time of John Sanders in the early Puritan colony, many professional bookbinders engaged in this work, although printers and booksellers also developed the art of bookmaking.

Among other shop industries, the production of watches and clocks should be noted. Belfry clocks and household timepieces were at first made to order. By the latter part of the eighteenth century, chronometers and watches were produced in quantity and were sold in the shops of the towns and by traveling peddlers throughout rural areas. During the colonial period most common folk had to get along with sundials and hourglasses, as watches and clocks were expensive. The manufacture of rifles became important after 1730, especially in the regions settled by the Pennsylvania Germans, many of whom were expert rifle-makers. The production of wallpaper was begun late in the colonial period by Plunket Fleeson, although "painted papers" had been imported in small quantities from an early date. The origins of the manufacture of floor coverings will also be found in the colonial period. A meager domestic supply was produced in the homes or in small craft shops, some of which operated under a "putting-out" system. In 1791, William P. Sprague of Philadelphia established the first factory for manufacturing carpets. Slowly other plants appeared, but for many years home-made floor coverings remained important. Altogether many different types of shops in the urban centers turned out products of all kinds to supply local needs and for intercolonial trade.

Iron and Glass Manufactures

Attempts were made to establish an iron industry from the very beginning of settlement. When Virginia was under the jurisdiction of the London Company, blast furnaces were built, but before production got under way the works were demolished and the ironworkers slain in the Indian massacre of 1622. The Puritans under the leadership of John Winthrop built furnaces and forges among the bog ores of the Bay Colony at Lynn and Braintree. These operated for more than fifty years, but lawsuits, technical difficulties, and other problems constantly interfered with the production of iron. A few other ironworks, chiefly bloomeries, were established in New England in the seventeenth century and one in Shrewsbury, New Jersey. But not much real progress was made until the eighteenth century. Most iron articles and ironmongery together with bar iron were imported from England.

From the second decade of the eighteenth century, the development of the colonial iron industry was most remarkable and before the Revolution, ironworks had been built in every colony except Georgia. In 1775 there were more blast furnaces and forges in the colonies than in both England and Wales, and the colonies produced more pig and bar iron than the mother country.[2] In 1700, the seaboard colonies made about one-seventieth of the world's supply of iron; in 1775, they produced almost one-seventh. Although the industry was scattered, it was most highly concentrated in southeastern Pennsylvania.

The furnaces and forges were established on plantations or estates, usually of several thousand acres of land where large quantities of wood could be obtained for charcoal fuel and where food for the workers could be raised. An adequate supply of iron ore was, of course, a most important factor in determining the location of a blast furnace and water power was also necessary. Accessibility to markets did not seem to be an important consideration to the ironmasters, for most of the plantations were relatively distant from the large towns. This resulted in high rates of transportation. The ironworks, however, did provide iron for the immediate vicinity in which they were located and also some for more distant regions.

With the exception of the primitive bloomeries where the iron was crudely made by heating and hammering bog and other types of ores in regions of New England and a few other places, pig iron and bar iron were produced on "iron plantations." The mansion house, built on a hill or elevation overlooking the blast furnace, where the ironmaster could keep his eye on its activities day and night; the refinery forge not far distant, often found in connection with the blast furnace or on separate plantations; the ironmaster's store where all the necessities of life could be obtained; the clustered dwellings of the workers in the village; and some distance away the mines, the woodlands, the farmlands, the gristmill, the sawmill and the blacksmith shop, all made up an almost self-sufficing community.

The furnace, a truncated pyramid of stone, built into the side of a small hill in order that the ore, limestone flux and charcoal could be put into the furnace at the top, was an impressive sight when in blast. The intermittent roar of the forced blast could be heard a long distance away. From the top of the furnace stack a stream of sparks was occasionally emitted as the flames rose and fell — pulsating with the blast. At night the almost smokeless flames cast a lurid glare upon the sky, visible for miles around, which illuminated the surrounding buildings. Within the main casting house or casting shed as it was called, which was built directly in front of the furnace, the "mysteries" of casting were carried on. Here the molten metal was run from the hearth into the waiting molds of scorched and blackened sand. Creaking wagons drawn by teams of horses hauled the iron ore up the furnace road. From the "bank," the fillers carried their baskets of ore, limestone and charcoal across the bridge to the furnace top. Pig iron was the chief product of the blast furnace, although pots, pans, kettles, stove-plates and fire-backs were also cast.

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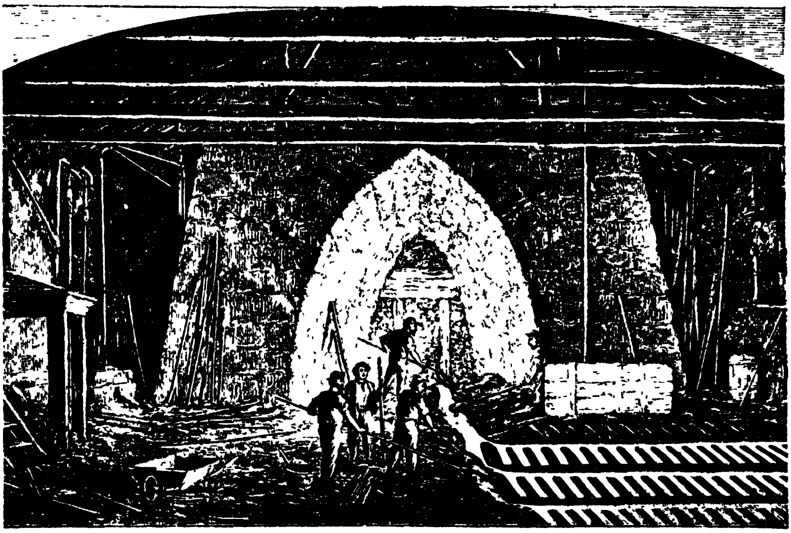
[2] England produced large quantities of manufactured iron products at this time, but was largely dependent upon Sweden for the bar iron from which they were made.

The forge, where the pig iron was refined and hammered into blooms, or bars of wrought iron, was generally not far distant. The dull, unvaried turning of the water wheel, the irregular splash of falling water, the rhythmic thump of the hammer, and the droning sound of the anvil, were a part of life on the plantation. Within the forge half-naked human beings of strong physique swung the white-hot pasty metal from the hearths to the great hammers by means of wide-jawed tongs. Under the steady strokes of the hammers, amid showers of scintillating sparks, the forgemen drew the bar to given sizes. Bar iron from the forges was used by blacksmiths to make tools, implements, and ironware of different sorts.

The problem of obtaining a sufficient supply of skilled labor faced the ironmasters continually. Many skilled workers, including ironworkers, miners and charcoal burners, were imported from Europe from time to time. In the manufacture of iron, free artisans usually performed the work of founding, casting, and "drawing" the iron, although indentured servants were sometimes employed, and even Negro slaves were used, many of whom became very proficient in "drawing" the iron under the large hammers at the forges.

The earliest ironmasters were English, but as time went on, they represented many different countries, including Germany, France, Scotland, and Wales. By the time of the Revolution, many men of importance and note were ironmasters or had financial interests in the manufacture of iron. Among these were George Taylor, George Ross, James Smith, Stephen Hopkins, Charles Carroll, Philip Livingston; General Daniel Morgan, General Nathanael Greene, Colonel Ethan Allen, Lord Sterling, John Cox, Mark Bird, and others. Many outstanding colonial merchants invested money in ironworks and in fact most of the capital required to establish and carry on the industry was merchant capital. Almost all the colonial furnaces and forges were built and controlled by a number of partners one of whom lived at the mansion house and carried on the enterprise.

In addition to bloomeries, furnaces and forges, other types of ironworks developed in the colonies but were usually found in towns or boroughs. At the rolling and slitting mills, the bars from the forge were heated and slit into small strips called slit iron, used for making nails. Small amounts of "blister" steel were produced in small furnaces by the trial and error method. Bars were stacked in pots or ovens and carbon in the form of charcoal dust, bone, or other material was scattered between them. After the pots were sealed, heat was applied for seven to eleven days. If the process was successful, the carbon from the charcoal and other substances was absorbed by the bars and they were transformed into steel. In the plating mill, bars were hammered out into thin sheets by powerful hammers driven by water wheels. The sheets were usually given a coating of tin after being annealed, thus producing tin plate. An increasing number of works of these types was established and the colonists began to supply themselves with nails, steel, and tin plate. The production brought opposition from the mother country and the passage of restrictive legislation. Still another type of plant appeared late in the colonial



From the old "Scribner's Monthly"

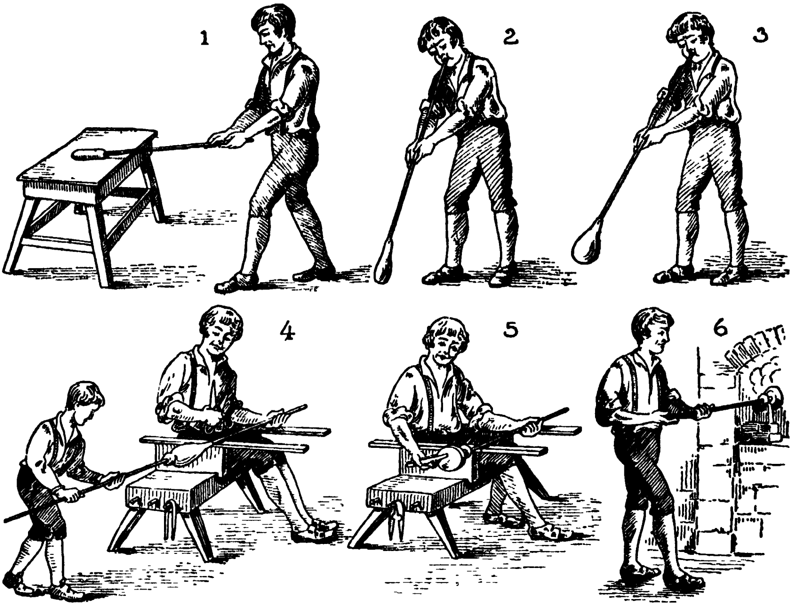
RUNNING PIG-IRON FROM AN EARLY TYPE OF FURNACE period — the air furnace. It had a capacity of about five tons for making castings from pig iron and was the progenitor of the modern cupola.

At the end of the colonial period, an iron plantation, including the land, blast furnace, forges, houses, gristmill, sawmill, and all equipment cost from £7,000 to £12,000. Plantations having only forges and the other equipment, but no blast furnace, were valued at £5,000 to £7,000. The smaller ironworks usually located in towns or boroughs, varied in cost. A slitting mill could be built for £1,200, a steel furnace for £700, a plating mill for £300, a blacksmith shop for £150, and a nailery for about the same figure, all exclusive of land. An air furnace was worth about £200.

The Iron Act of 1750 encouraged the making of colonial pig and bar iron but regulated the production of the more refined types of iron. It provided that colonial pig iron could enter Great Britain free of duties and that colonial bar iron could be imported into London duty free (extended in 1757 to include all English ports). The law specified that slitting mills, steel furnaces and plating mills could not be erected in the colonies, although those already in operation were permitted to continue. The legislation was in no way successful. Increasing amounts of iron were sent to the mother country but not in such quantities as to reduce the amount imported into England from Sweden and Russia to be manufactured into tools and implements for exportation and domestic use. The colonists worked up most of the iron they produced into articles needed by themselves, thus defeating the plan of sending pig and bar iron and receiving the finished iron products from the homeland — at a great profit, of course, to English manufacturers. The restrictive aspects of the law, also, were not observed and many forbidden ironworks were erected all over the colonies — even in the capital city of Philadelphia under the eyes of the governor who was charged with the duty of putting the law into effect. A few colonial governors opposed the restrictions; others, especially in the royal colonies, had many more vital affairs to absorb their energies, such as their struggles with the Assemblies which held the purse strings and paid their salaries; and still others had little interest in what was going on within their colonies.

The blacksmith, as a skilled artisan in iron, occupied an important position in colonial economy. His activities were not confined to repair work, for he shaped bars of iron into axe-heads, hoes, shovels, chains, bolts, latches, scythes and other needed articles. There were hundreds of blacksmith shops scattered throughout the colonies and the most highly proficient blacksmiths were skilled craftsmen as can be seen in their handiwork that still survives in the form of artistic hinges, weather vanes, iron gates, railings, and balconies.

Whitesmiths, workers in tin plate, could be found in some of the towns and boroughs during the latter part of the colonial period. At their shops, many of which employed twenty or more workers, a variety of utensils was made, such as kettles, coffee pots, saucepans, stewpans, fish kettles, lanterns, sand-shakers, boxes, and Dutch ovens, for which there was a constant demand. The whitesmiths secured tinned plates, chiefly from South Wales, and often imported block tin with which they tinned iron sheets hammered out at American plating mills.



GLASS-BLOWING

1. The mass of molten glass, taken from the crucible, on the end of the blowpipe is brought to a cylindrical form by rolling it on an iron plate. 2. Beginning the work with the blowpipe. 3. Continuing the blowing until the glass is swollen to a size approximating that of the intended object. 4. The swollen form is made to adhere, by the aid of a small portion of hot glass, to the end of an iron bar. 5. The glass having been detached from the blowpipe is now shaped to the desired form by the glass-worker as he rolls the iron bar on the two arms of his work-bench. 6. Re-heating the glass during the course of the work to have it retain its pliancy so that the glass-worker may shape it to the desired form. *Adapted from old engravings*

Articles of brass manufactured at small foundries, and large quantities of brass buttons produced by merchant-manufacturers in the towns, were made from old English brass ware, often obtained by itinerant peddlers in part payment for their goods which they in turn sold to the brassworkers. Warming pans were made from copper and brass but most were imported. Cast lead was also used for making urns and other articles, although most of this metal provided part of the material necessary for pewter. Metal industries other than iron did not flourish in the colonial period. Though small copper and lead mines were opened up from time to time, these industries did not make much progress. The production of brass — an alloy of copper and zinc — was not considerable, in spite of many attempts to produce the metal, because zinc had to be entirely imported.

Attempts to produce glass, badly needed for windows as well as for bottles, and other utensils, were made early. At Jamestown in 1609 and 1621, and in Salem in 1639, glass was made but chiefly for beads for the purpose of trading with the Indians, although some other forms of glass were produced. In New Amsterdam, Jan Smeedes in 1654 and Evert Duyckingk the following year began glassmaking. The street on which they lived and worked became Glass-Makers' Street (later William Street). Several other attempts were made in the seventeenth century, but without much success. In the eighteenth century, Caspar Wistar and Heinrich Wilhelm Stiegal laid the foundations for American glass manufacture.

In 1739, Caspar Wistar started his works at Wistarburg on the Jersey side of the Delaware River across from Philadelphia. He imported expert glassworkers from Rotterdam and together with his son, Richard Wistar, established a business that continued for forty-two years. Window glass, bottles, pitchers, bowls, phials, tubes, and other glass products were made from silica (sand), soda or potash, and lime. The Wistars were the first in America to make flint glass successfully by substituting oxide of lead for lime in the composition. The Revolution bore heavily on the affairs of the Wistars, who were engaged in many mercantile projects in addition to glassmaking, and their enterprise finally came to an end. Their skilled workmen scattered and aided in establishing glass factories in different regions, the beginning of rapid expansion in the industry.

Heinrich Wilhelm Stiegel came from Germany about the middle of the eighteenth century and first turned his attention to iron manufacture. Beginning in 1763 he erected glass houses at the village of Manheim, near Lancaster, Pennsylvania, which he planned and built. He secured skilled labor from Germany and produced window glass, bottles, glasses, flasks, retorts, tableware, vases, dishes, snuff bottles, scent bottles, and toys. He produced not only "white" (transparent) glass but colored glass of exquisite quality — deep blue, amethyst, wine colored and green, all much sought after by collectors today. A love of ostentatious display and speculation of different kinds, especially in land, brought about his downfall and the self-styled "Baron" Stiegel died in poverty in 1785. But together with the Wistars, he played an important part in an industry that was to flourish in the next century.

The Potteries

Potteries were established during the early days of settlement in Virginia and New Netherland. The clays of different sections of most colonies were baked in kilns in attempts to produce tiles and the coarser sorts of stoneware. In 1684, Dr. Daniel Coxe of London, a proprietor of West Jersey, made the first white ware produced in the colonies. The early pottery industry was characterized by many small plants scattered over the colonies, some flourishing for a time only to disappear, usually because of financial failure. New York became important for stone ware, especially after John Remmey and William Crolius started their plant about 1735 in New York City. But important potteries were also established in Salem, Braintree, Boston, and Peabody, in Massachusetts, Litchfield in Connecticut, East Greenwich in Rhode Island, as well as in many places in southeastern Pennsylvania.

Drawn from Originals at the House of the Miller of Millbach © *Pennsylvania Museum of Art*

PENNSYLVANIA GERMAN POTTERY OF THE LATE EIGHTEENTH CENTURY

Before 1765, English manufacturers of pottery and earthenware became alarmed at the number of potteries in the colonies. Josiah Wedgwood expressed fear for England's earthenware and stoneware trade with America and prophesied that the young country would prove a rival since "it has every material there equal, if not superior, to our own for the manufacture." Before the Revolution, porcelain was made in the colonies and potteries like the Southwark China Works in Philadelphia were advertising for "skillful painters and enamellers in blue," and offering premiums for the production of zaffer, a compound of cobalt.

The methods of making pottery, like those of other industries, were improved throughout the period. Originally each piece was shaped separately by hand on the potter's wheel but in the eighteenth century, molds of porous hard clay, and later of plaster of Paris, were used. Into these molds the clay was run or pressed. Some changes came in connection with the decoration of the surface as well as with the body and the glaze. Slip ware or pottery upon which color designs were imposed was especially popular among the Pennsylvania Germans. Other types of pottery included designs baked into the clay.

The Distilleries

The manufacture of rum became an important New England industry after the latter part of the seventeenth century. Molasses, the chief ingredient in making rum, was obtained from the West Indies in return for lumber, fish, and other products. Much rum was drunk in all colonies for it was generally believed that men could not stand the hardships of their employment or the rigors of the weather without it. Rum became a basis for trade with all the colonies and with the West Indies, although West Indian and other important rums had been largely used in the seventeenth century. By 1750, Massachusetts was exporting 2,000,000 gallons annually and on the eve of the Revolution there were sixty-three distilleries in that colony and large numbers in Connecticut and the other New England colonies. The distilling of whiskey and gin were also begun at this time. Attempts were made in the middle colonies to distill rum for commercial purposes, but in general they failed, except in New York. On the larger plantations of the southern colonies liquors were manufactured for home consumption, the distillery being a part of every large mansion. On northern farms, also, liquors were distilled and wines of different sorts were made almost entirely for home consumption.

Attempts to Produce Silk

England developed a vital interest in silk culture in the colonies because, following mercantile reasoning, if raw silk could be produced in sufficient quantities the mother country would be free from dependence on foreign countries for the commodity; the export of specie for such material would cease; and colonial silk could be obtained in exchange for English manufactures. Early in its history silkworm eggs, mulberry-tree seed, printed instructions and skilled silk workers were sent to Virginia. The production of silk was attempted in most colonies at various times. Several colonial assemblies offered bounties for growing mulberry trees, raising cocoons, and for reeling the silk thread. In 1750, Parliament removed the duties on raw silk imported from the plantations and in 1769, granted a bounty, while direct appropriations were made from time to time to Georgia. Several English learned societies promoted the production of silk in the colonies and the American Philosophical Society in Philadelphia encouraged it. Although Georgia exported some silk to England including a quantity which was made into a dress for Queen Caroline, all efforts failed to establish a permanent silk industry in the colonies. It was too highly specialized under such conditions as then existed, for the extreme patience and high skill necessary to its success were not to be found. The colonists were too busy subduing the wilderness. England refused to consider the difficulties and attempted to encourage silk culture until the Revolution.

The Regulation and Encouragement of Industry

The Iron Act of 1750 is an excellent example of an attempt to make the principles of British mercantilism practical. On the one hand, it encouraged the exportation of unfinished colonial iron to England by relaxing the duties; on the other, it forbade the further erection of mills where semi-finished materials such as slit iron, steel, and tin plate could be produced and which would lead the colonists to manufacture for themselves. The earlier law of 1699 forbidding the export of wool and woolen goods from any colony was intended to benefit English woolen manufacturers. Likewise, the restrictive clauses of the Hat Act of 1732 were passed at the request of English hatmakers who were losing a part of their markets because of the activities of colonial hatmakers.

Restrictions, however, were attempted not only through the passage of laws but also by administrative action. In its inquiries and reports, the Board of Trade and Plantations was constantly concerned with the problem. It frequently emphasized in its instructions to the governors that the restriction of manufacturing was one of their important duties. Only in a few cases were such orders taken seriously. Especially after 1763 was the Board active in this respect, but the governors were too busy, too unconcerned, too ignorant of conditions, or too apprehensive to make accurate reports and those forwarded to the official bodies in England were written to please English eyes rather than give a true account of actual conditions. The Privy Council was also concerned in restricting colonial manufactures and it had occasion to order the colonists to refrain from imposing tariffs on English goods, thus discouraging colonial legislation which favored manufacturing in the colonies.

Throughout colonial history may be found innumerable examples of bounties, premiums and subsidies paid for the production of raw materials. In some cases bounties were paid in cooperation with the English acts that subsidized such commodities as naval stores and hemp. But most colonial bounties — even on raw materials — were given to encourage manufactures. Woolen cloth received bounties from many assemblies until the British Woolen Act of 1699 was passed. After this date and until 1775 only Rhode Island ventured to give direct encouragement to woolen manufacture. Bounties were paid on the production of linen, duck, potash, stoneware, wool cards, and other commodities. In 1759, Virginia established a corporation to encourage arts and manufactures by means of premiums. Other means of aiding manufactures were provided through land grants, the authorization of lotteries, the granting of loans, and the exemption of workers from military, road, or other services. A mass of legislation was adopted which aided the establishment of many industries. Progress was made in manufacturing to a much greater extent than was imagined in England or than was set forth in the official records. Several factors, however, tended to hold back manufacturing industries. These included a continual lack of capital, difficulties in obtaining skilled labor, and the handicap of poor transportation facilities. In spite of these obstacles, colonial manufacturing developed and the foundations of a great industrial structure was laid without which independence could not have been won.

Display Initial "G"

A Decoration for Chapter Ends

DISPLAY TYPE FROM THE CLOISTER FONT MADE AT EPHRATA PRIOR TO 1748

From *German Sectarians of Pennsylvania* by Julius F. Sachse

CHAPTER V

Colonial Commerce and Trade

Trade with Great Britain

The statistics of colonial imports and exports in 1775 seem small in the light of world trade today. Increasing prosperity, however, came to the colonists as they exchanged their raw materials and surplus products for goods that they did not produce or manufacture. Markets for colonial products developed in the West Indies, northern Africa, and elsewhere, as well as with the mother country. Commerce laid the basis for the seaport towns and brought wealth to their merchant classes and to the planters of the South. It resulted in accumulations of capital, much needed for many purposes in the new country, and it greatly increased activities in the seaport towns as ships were built larger, wharves extended, warehouses expanded, insurance developed, and reliable maritime news became more and more necessary.

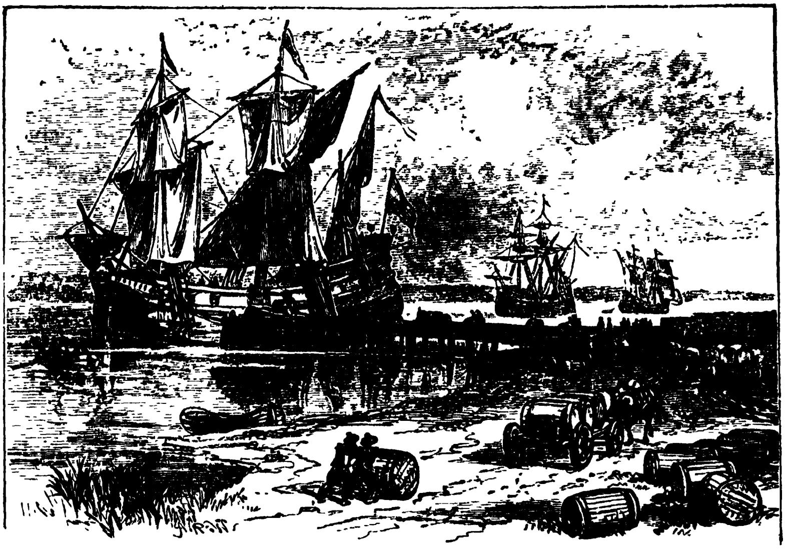
In accord with the frontier character of their economy, the colonists early began to trade with England. It has already been noted that long before the English established permanent settlements, many Europeans steered their craft to the fishing banks and returned home with their catch. As some of these mariners were English, the first commercial commodity of the New World to reach the mother country was fish, although the wealth plundered from Spanish galleons must also be considered an early American product to reach England. As colonies were established and New England became essentially maritime, fish was exported to the homeland, but the market in England for the fish of the Puritans did not grow materially. Great Britain was supplied by her own fleets which sailed annually to the Newfoundland banks, and later in the colonial period from the settlements on the island of Newfoundland. Baltic fleets also carried fish to English shores. The New Englanders, forced to find other markets, secured these quickly in the West Indies and elsewhere.

The earliest exports from Jamestown and Massachusetts Bay Colony included lumber, naval stores and furs, exchanged for English manufactured goods. As southern colonies increased in population, it was fortunate that tobacco with a ready market in Europe could be grown, for its culture and exchange for English goods fitted perfectly into the mercantile scheme. By the middle of the eighteenth century, hundreds of vessels, each of a burden of from 200 to 400 tons, the property of English and American shipowners, were used in the trade. As early as 1621, a royal proclamation required that Virginia tobacco be sent only to England. This was done to keep colonial trade in the hands of English merchants who would pay for the tobacco in English goods and distribute it profitably within England and to foreign countries. The Navigation Act of 1660 required that tobacco exported from all the colonies be first landed in England where duties would be paid and where it would be handled by English merchants. To evade the duties some tobacco was smuggled into Scotland and also landed along remote sections of the English coast. Just how much entered in this manner is impossible to state because of the nature of the activity, but from parliamentary investigations and reports, it is evident that at times it was fairly large and that some was sent in violation of the law direct to foreign countries.

Most tobacco, however, was sent through the prescribed channels. At first, the merchants of Bristol, Liverpool, Southampton, and Plymouth competed with London merchants for the American tobacco trade. By the eighteenth century, the merchants of London had captured most of it. The merchants there usually acted as commission agents for the planters. In accord with instructions, at a fixed commission, they sold the tobacco, and bought and returned to the planters the merchandise that they desired. The merchants of the other ports where tobacco entered usually sent commodities needed in America in their own vessels, selling them to the planters at a profit and buying tobacco and furs with the proceeds. Southerners who owned their own vessels were in a much better position to trade with English merchants than were the majority dependent on English or northern shipping.

In the eighteenth century, rice and indigo together with increasing quantities of naval stores from the Carolinas were added to tobacco, the chief southern export. Rice was made an enumerated commodity in 1704 and the next year bounties were granted on naval stores. The exportation of indigo to the mother country was also encouraged in 1748 when a bounty of sixpence was offered for each pound reaching the mother country. Among other products exported by the South to England were peltries and grain. In return were sent manufactured goods, clothing, wine, seed and other commodities.

Despite the fact that the southern trade with England fitted far better into the mercantile system than the trade of the northern colonies, actually there was a continual unfavorable balance of trade against the South. Although official statistics usually show a trade balance in favor of the southern colonies, the opposite is true when duties, commissions, damages, and charges for transportation, handling, inspection, and storage are taken into account. The unfavorable balance was due to the fact that the planters obtained more commodities in England than their products brought. In 1769, the total imports into the southern colonies amounted to £1,247,246–0–4 while total exports to England were £1,100,369–3–6. In analyzing such statistics allowance must be made for the importation of slaves. Because of the reliance upon a few staple crops and a lack of manufactures, the South was dependent to a considerable degree upon England throughout the entire period. There were times, therefore, when English and even northern goods were scarce in the South. On the other hand, the plantation system was being expanded with the aid of English capital sent to the South through commercial interchange. By the time of the Revolution, largely because of the cultivated tastes of the planters, they were greatly indebted to English merchants.



From Bryant's "History of the United States"

TOBACCO SHIPS IN THE JAMES RIVER, VIRGINIA

The developing northern colonies did not fit as well into the mold of mercantilism. Aside from naval stores, furs, and peltries, they produced commodities similar to English goods and in many ways competed with the farmers, fishermen, shipbuilders and manufacturers of the mother country. This was clearly brought out by Sir Josiah Child, in his *Discourse on Trade* as early as 1680: "New England is the most prejudicial Plantation to this Kingdom." This charge applied not only to Massachusetts and her neighboring settlements but to the middle colonies as well.

As the eighteenth century opened, however, and England was becoming more and more industrialized, the attitude of the mercantilists changed somewhat in this respect. With their increasing populations and growing wealth the northern colonies came to be regarded as valuable markets for the manufactured goods of England, especially because the climate required woolen goods and other fabrics, which the colonists could not entirely produce themselves. The West Indies — important in British economy because of their sugar and other semi-tropical products — only slowly increased in population and were less valuable as markets because of the large proportion of slaves. The growing importance of the northern colonies as markets for English goods was reflected in such laws as the Woolen Act, Hat Act and the Iron Act, and many adjustments on duties.

New England exported to the mother country small quantities of fish and such products as masts, lumber, potash, livestock, and provisions. In the eighteenth century whale oil, fish oil, and whale bone became of increasing importance. Especially profitable was the sale of ready-built vessels. In the growing competition in shipbuilding with England, the Americans could build vessels much cheaper, while the English shipbuilders were especially handicapped by lack of timber, depending upon other countries for it. In New England plentiful supplies of timber and naval stores more than offset the higher cost of labor. In competition with Europe, therefore, American shipbuilders were at a great advantage and, during the first half of the eighteenth century, New England vessels were sold in all parts of the Atlantic world. Ships were sent to England loaded with lumber and other forest products in return for English manufactured goods. As a result, a large part of the merchant marine of Great Britain was built in America. For most of their fish products, rum and other commodities, New England had to seek other than English markets.

The trade of the middle colonies with England was fraught with difficulties because its commodities, like New England's, competed with those of the homeland. In the eighteenth century, most of its commerce was carried on from Philadelphia and New York. Through these ports the products of the "bread colonies" were distributed.

Among the exports to the mother country were wheat and other grain, ships, lumber, skins, furs, flax seed (chiefly to Ireland) and toward the end of the period, pig and bar iron. Some goods, secured in trade with other countries and colonies such as logwood, sugar, rum and tobacco, were sent to Britain. As was true of New England much of the region's commerce was carried on with the West Indies.

From 1700 to the eve of the Revolution, the commerce of the southern colonies with the mother country was more than double that of the northern colonies with Britain. In the decade before the Revolution five-sixths of all the exports from the South went to England and in return Virginia, Maryland, the Carolinas and Georgia received most of their manufactured goods. On the other hand, only one-fourth of New England's exports went to the homeland and less than one-half of the total exports from the middle colonies. The striking difference in the commercial relations of the northern and southern colonies with Great Britain was due to the nature of the products of the different regions — tobacco, rice and indigo together with naval stores and skins from the South supplied English needs rather than competed with English products as did the products of the North.

To be SOLD, by the Subſcriber, near the Capitol,
in Williamſburg,

GENUINE *French* Claret, at 40 *s. per* Dozen, Samples whereof may be had at 4 *s.* a Bottle, net *Barbadoes* Rum at 5 *s. per* Gallon; alſo fine *Madeira* Wine, *Engliſh* Beer, and *Hughes*'s Cyder, at the common Rates; alſo a Caſk of fine Hogs-Lard, of about 230 *lb.* Weight, with ſeveral Pots of Capers and Anchovies.

2 *Daniel Fiſher.*

AN ADVERTISEMENT OF A SALE OF A SHIPMENT OF LIQUOR, CAPERS, AND ANCHOVIES

From "The Virginia Gazette" of 1752

Trade with the Continent of Europe

Although restricted as to the character of goods by the navigation acts, trade developed between New England and Portugal, Spain and southern France. Dun fish — the best grades of fish — together with barrel staves, pipe staves and shingles were exchanged for Cadiz salt, domestic wines, Malaga grapes, Bilbao iron and pieces of eight, Valencia oranges, and, after 1690, for ship timber. This Mediterranean traffic was permitted because it did not interfere with English commerce. The northern colonies also sent fish, lumber and provisions to the Canary Islands, Madeira and Fayal in exchange for a variety of wines. Some of the wine was carried to England in American vessels to obtain credit for English goods.

Much colonial commerce was not a two-way trade but a triangular one. It might involve a colony, a European country, and England. For example, Massachusetts might send fish to Spain; the vessel would return to England with wines; and some of the wines exchanged for English manufactured goods for the return trip to the colony. Newfoundland or a West Indian island and the mother country might be associated in a colony's trade. A northern colony, a southern colony and England might be involved in shipping provisions from the North to a southern port, tobacco or rice from the South to England, and manufactured goods to the original place of departure. Quite lucrative was the New England triangular trade with the northern coast of Africa and the West Indies; the two-way trade to the Sugar Islands was also relatively large.

The West Indian Trade

The northern colonies traded most profitably with the British islands of the Caribbean: Jamaica, Barbados, Antigua, Montserrat, Nevis, and St. Kitts. Here much of the world's supply of sugar was produced by slave labor and the islands were dependent upon the outside world for most necessities. From New England they secured lumber for their houses, the poorest varieties of fish for the slaves, much packed beef and pork, dairy products, horses, candles, whale oil, and Yankee manufactures. In exchange, cargoes of sugar and molasses for the New England distilleries, coin, coffee, cotton, ginger, pimento, and bills of exchange were returned. From the "bread colonies" of Pennsylvania and New York, wheat and other grain, flour, bread, biscuit, packed meat, vegetables, potatoes, barrels, staves, candles, and lumber were exchanged for West Indian products. The southern colonies exported much less to the Caribbean area, but shipments included foods, casks, staves, and cypress shingles.

Out of the New England trade with the West Indies developed the lucrative triangular traffic in slaves with the western coast of Africa. From Boston, Newport, and other northern towns, vessels sailed to the Gold Coast of Africa with rum, pots, manufactured goods, provisions, shirts, shackles, and "African iron" (short bars used as currency in Africa). These cargoes were exchanged for slaves, gold dust, ivory, and pepper, obtained from African traders and Negro chieftains. The slaves and much of the rest of the cargo were sold in the West Indies for molasses, sugar, and bills of exchange drawn on London, Liverpool or Bristol. Landed at the original port of departure in New England, the molasses was the basis for rum to be used in the African trade and sold for home consumption. While cargoes, routes, and ports varied, this trade was built largely on the never-ending cycle of rum, slaves, and molasses. Stories of the journey from Africa to the West Indies by way of the terrible "middle passage," the second leg of the triangular voyage of a slave ship, have been embodied in the world's literature. Unbelievable tales have been told, without exaggeration, for the horrors of the trip were attended by brutality and by a high mortality. The shackled slaves were laid side by side on the decks of the slave ships or were callously packed into holds. Slaves taken ill were often thrown into the sea that the rest might not be contaminated by fever or pestilence. Those who survived were sold in the West Indian markets to all the British colonies. By means of the two-way trade, a relatively small number were brought direct from Africa to the southern colonies and were paid for with rice, tobacco, indigo, and provisions.

Intercolonial Trade

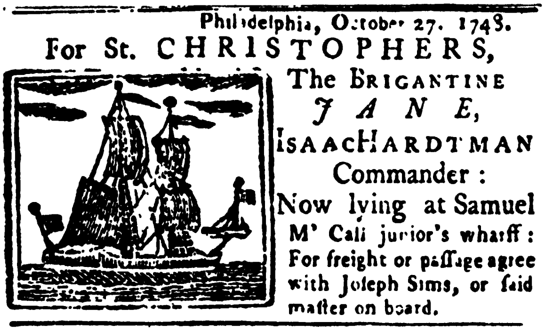
Most of the trade between the mainland colonies themselves was coastwise. It was largely in the hands of Americans — especially northerners — with very little competition from English shipowners and captains. This monopoly played a most important part in the growth and prosperity of the seaport towns, for they became the commercial centers for most of the trade of the colonies. In addition to the exchange of goods, the sea lanes of intercolonial commerce linked the different settlements in an era when good roads were scarce and other means of communication lacking.

Tobacco was sent from Virginia to New England in return for fish at a very early date. All types of vessels were used in the trade. As might be expected this commerce was small in volume at first. After 1700, however, it broadened and became important, although it never equalled in value the trade with England or the West Indies. Intercolonial trade consisted not only of a supplementary trade of one colony with another, but also of a redistribution of goods from England, the West Indies, and foreign countries. Imported wines, spices, and sugar, for instance, were sent from Boston to the colonies to the south in exchange for their products.

New England shipped to the middle and southern colonies such commodities as packed meats, salted fish, cider, rum and candles. From New York, Philadelphia, and the Chesapeake area flour, bread, biscuit, bar iron, and stoves were sent both north and south. Tobacco, rice, indigo and naval stores were exported northward from the South. All sorts of manufactured articles were shipped from one colony to another. These included the products of the cabinetmakers, silversmiths, and others — and such industrial by-products of northern farmers as hewn lumber, buckets, brooms, ox-tows, and ax-helves.

Local Trade

The important centers of local trade were the commercial towns, located near the coast where there was a relative density of population. In them commodities from surrounding regions and imports from across the sea were sold. Boston dominated a wide region in the North; New York controlled the business of that province, western Connecticut and eastern New Jersey; Newport was the leading market for Rhode Island and for southern Massachusetts, and Philadelphia became the great market of the middle colonies; Charleston was the leading center in South Carolina, Georgia and southern North Carolina. Smaller towns like Providence, Baltimore, and Savannah played a lesser role in their respective areas. In addition, the shops and country stores of hundreds of scattered boroughs, villages, and plantation towns provided for the needs of those who lived in isolated localities.



Philadelphia, October 27. 1748.

For St. CHRISTOPHERS,

The BRIGANTINE

JANE,

ISAAC HARDTMAN

Commander:

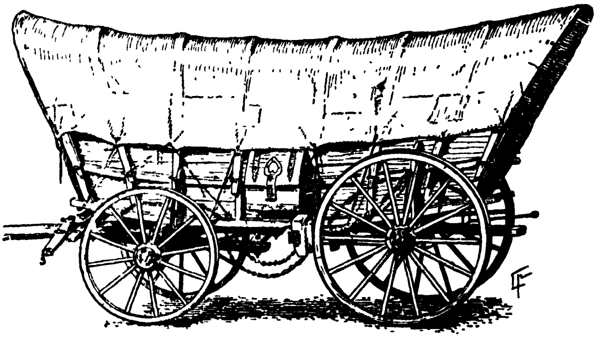
Now lying at Samuel M'Call junior's wharff: For freight or paſſage agree with Joſeph Sims, or ſaid maſter on board.

ADVERTISEMENT OF THE BRIGANTINE *Jane* CARRYING PASSENGERS AND FREIGHT

From "The Pennsylvania Gazette," October 27, 1748.

In the larger towns of all the northern colonies, markets and fairs — similar in many respects to those of the Old World — were important agencies for distributing goods. In some places, markets were held frequently; in others only once a week. The town or borough charter usually included such provisions and permitted fairs to be held, generally, twice a year. The fairs brought visitors from miles around. Merchandise, provisions, tools, supplies, and livestock were sold and exchanged. Many people came for excitement and pleasure as well. Young people attended, seeking romance; and some who had passed the age of romance planned a wild frolic. Horse racing, drinking and gambling were often prominent. Largely because they degenerated into licentiousness, but also because of opposition from shopkeepers, most of the fairs were abolished toward the end of the eighteenth century. Early in the nineteenth century, agricultural and mechanical fairs took the place of the old borough fairs, which were reminiscent of medieval days.

Even in well settled areas, roads were dusty in summer and muddy in winter, frequently impassable, and led across frail bridges and unbridged streams. But poor as they were, they did connect the various regions and in the latter part of the period were important arteries of trade. They led to the trails over which the westward Indian trade was carried on, furnishing routes to and from the commercial towns. They were necessary in the distribution of produce, manufactures, and iron from the back country, whether distributed locally or sent to the larger centers of trade. In the middle colonies especially, "freight wagons" or Conestoga wagons — strongly built, the body sloping forward slightly, and covered with coarse cloth stretched over hoops — transported merchandise, goods and produce. By 1750, more than 7,000 were in use throughout the colonies. The cost of transportation was very high owing to the poor condition of most roads and highways. For example, the cost of transporting iron from the furnaces near Reading, Pennsylvania, to Philadelphia, a distance of about fifty miles, averaged £2–0–0 a ton throughout the period although the price of iron at the furnace was but £3–0–0 a ton. The importance of the roads for travel and trade, however, cannot be minimized in the decades preceding the Revolution. When stagecoach service increased, and as taverns and inns sprang up throughout the countryside, the roads became increasingly a tie to bind the colonies and were a means of dissipating isolation and provincialism.



THE CONESTOGA WAGON, FORERUNNER OF THE "COVERED WAGON" OR "PRAIRIE SCHOONER"

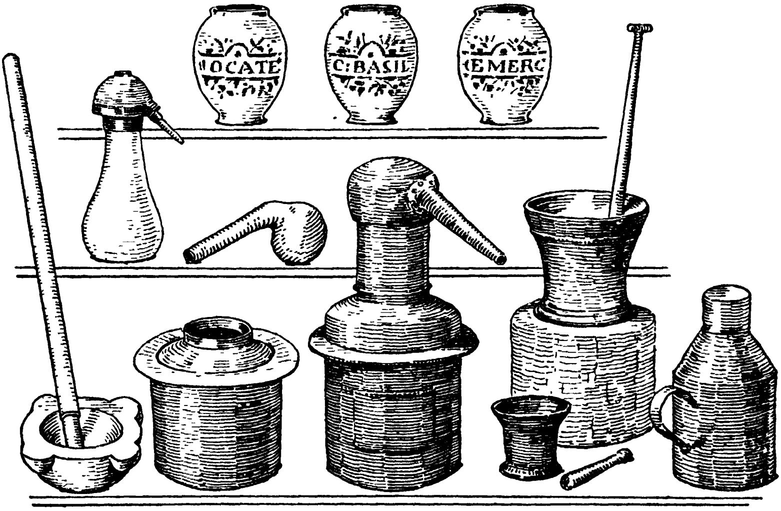
Over colonial roads traveled "merchants and inland traders in carts" with their loads of coats, breeches, shoes, buckles, shirts, neckcloths, gloves, salt, spices, and other goods for stocking the shelves of country stores. Itinerant peddlers, chapmen, and hawkers with their mysterious packs, increased in number after 1700. Traveling on horseback or by boat or carriage, they carried with them a surprisingly large number of such articles as brooms, kettles, pans, ovens, tinware, books, spinning wheels, shuttles, wooden bowls, plates, needles, and many other types of merchandise and "Yankee notions" produced in the shops and homes of New England, but some of these wares were made in the middle colonies and even in the South. These itinerant merchants were popular in the back country, for they distributed news and gossip as well as their wares. In the more settled communities, they were opposed by the merchants when competition increased and in a few localities, peddling was prohibited under penalty of fines. Such laws and ordinances were difficult to enforce and they usually had little effect on the itinerant merchants.

Legislation to safeguard and protect the consumer was adopted in all colonies. Derived from early British market laws and the regulations enforced by the European guilds, they regulated the weight, quality and price of bread, set standards for the different grades of flour; provided the conditions for packing meats; prescribed the size and type of barrels for certain commodities; and forbade the adulteration of a variety of products. From time to time, inspectors, sealers and other officials attempted with varying success to enforce these laws.

The Seaport Towns

Seaborne commerce centered in a few towns, or "cities," favorably located by geography. As these ports grew, they became seats of commerce and trade, the chief places of culture and fashion, and political and financial centers as well. For many years Boston was the largest town, the population rising from 7,000 in 1690 to 18,000 in 1750. By the middle of the eighteenth century, Philadelphia, whose career began later than that of the other cities, forged ahead to become the metropolis of British America, having in 1774 a population of 40,000, about double that of Boston at the same time. New York also grew rapidly in the eighteenth century and on the eve of the Revolution had 30,000 people. At this time, Newport, Rhode Island, numbered about 12,000 and was known throughout the country as a famous summer resort. Planters from the South and merchants from the cities vacationed there. The chief commercial town in the South was Charleston. A thriving port and a dominant political and social center, it possessed a distinguished culture. Many southern planters had town homes there. Communities of less than 12,000 inhabitants included Salem, Providence, and New Haven in New England; and Baltimore, and Savannah in the South. While the figures of population seem small compared with those of the great urban centers of the present, it should be remembered that they compared favorably with the English towns — excluding the great metropolis of London — before the industrial revolution.

Each American seaport town had its own characteristics and atmosphere, but all had certain similarities. Its wharves, warehouses, and counting houses, together with the nearby shipyards and maritime shops, were the busiest parts of a town. Cargoes were brought ashore to the accompanying noises of hand-turned windlasses and capstans. Nearby, bundles, boxes and barrels were loaded on tall-masted vessels awaiting their turn to leave for some distant port. The detail of imports and exports was faithfully recorded in ponderous ledgers at the counting houses. Not far away the officials of the customs in their offices checked and noted the duties levied on goods that had just been landed.



APOTHECARY'S UTENSILS, 1752

Within sound of the noisy wharves were the retail shops of the town, where almost anything one desired could be obtained. Their many-paned windows did not display wares as enticingly as the stores of today. Many were general shops stocked with a variety of commodities. Others made an attempt to specialize in such high priced luxuries as crimson breeches, silks, fancy handkerchiefs, rings and necklaces. In some, tools, meat-jacks, fishhooks, nails, gooseshot, Philadelphia bar iron, and Bristol crown glass, could be purchased as well as bohea tea, French indigo, Poland starch and West Indian brown sugar. A few merchants restricted themselves to imported English goods. The goldsmith usually specialized in jewelry, and bookshops offered anything made of paper. One type of shop, the apothecary's, was even more highly specialized than its descendant, the drug store of today. Within its field it offered a variety of articles: all kinds of balsams of life, female medicines, purges and vomits, as well as smelling salts, spices, white sugar candy, salt petre, "anodyne necklaces for the easy breeding of children's teeth," "blood stones," "teeth drawers," and different types of medical apparatus. The faint beginnings of the chain store system can be observed in the colonial period as a few of the larger merchants, dealing in many commodities, extended their stores to two or more towns.

Jumbled among the retail shops were wholesale and craftsmen's shops. Cabinetmakers, coopers, anchor smiths, chaisemakers, leather workers, chairmakers, silversmiths, and other craftsmen had their shops in the main part of the towns. After the fashion of medieval European towns, there were attempts to group in one area, those of a single craft, such as the cabinetmakers or silversmiths. Each shop, whether that of a merchant or a craftsman, had its own picturesque and informing sign, marking its location and representing its business.

Taverns, inns, ale-houses, and coffee shops could be found in all the eighteenth century towns and boroughs. They varied from the well-equipped taverns of the commercial centers to the wretched, dirty, verminous inns of the back country. In the larger towns, the tavern was especially important. It was the meeting place of its day — the club, the bourse, the casino, political headquarters, and the collector and disseminator of the news important or trivial. Here cargoes were bought and sold, and slaves and goods were auctioned by merchants and traders. Here travelers, wearied and worn from long journeys by stagecoach, sought refreshment and rest in its hospitable atmosphere. A signboard set forth the name of the hostelry: the Three Crowns, the Bunch of Grapes, the London Tavern, the Dog's Head, the Black Horse, the Unicorn, the Indian Queen and the Swan were some. During the Revolution the Union Jack became the Flag of the United States of America, — while to save the cost of repainting, perhaps, the Golden Lion became the Yellow Cat.

The development of the seaport urban centers is one of the most striking aspects of early America. Many problems confronted these pioneer cities, including those relating to their physical aspccts and economic development. The means by which solutions were sought in spite of overwhelming difficulties merits admiration. In these towns evolved a society distinct from that of the rural districts, less independent perhaps, but more educated and cultured, and possessing a broader outlook. Although more conservative and more closely connected to the mother country than the tidewater sections of the back country, the society of the rising commercial centers played a most important part in determining the pattern of American culture.

Colonial Merchants

Colonial merchants varied in rank from the important, wealthy merchants of the seaport towns who lived in houses as "handsomely furnished as most in London" to the small shopkeepers of the rural villages. The merchants in the seaports increased in number and importance as commerce developed. In a few cases the business descended from one generation to another as famous mercantile houses were established. Representative of important merchants were: Andrew Belcher, Stephen Minot, Andrew Faneuil and Thomas Amory of Boston; Stephen De Lancey, Abraham de Peyster, Caleb Heathcote, Jacob Franks and Benjamin Faneuil of New York; Edward Shippen, Richard Willing, Isaac Morris, Caspar Wistar, and Jonathan Dickinson of Philadelphia, and Samuel Eveleigh, Arthur Middleton, Jonathan Amory and Sarah Rhett of Charleston. In the seventeenth century some of the southern trade was in the hands of British merchants who kept factors in the South, but in the eighteenth century, commercial activities were carried on largely by a merchant class similar to that of the North.

The great colonial merchants were importers, exporters, middlemen, retailers and bankers. They played a most important part in providing credit and in accumulating capital in a new country where both were difficult to obtain. Through them, loans to carry on business were secured from England and they were also the agents for the English goods and capital that filtered throughout the colonies. Smaller merchants and shopkeepers were largely dependent upon them for merchandise, supplies, loans, and instruments of exchange to carry on their own activities. The great merchants guided and directed mercantile enterprise through prosperous periods, depressions, shortages in currency, crop failures, and restrictions on trading activities, as well as during the embargoes and non-importation agreements of the later period.

Many merchants maintained or were part owners of shipyards, warehouses, and wharves as well as the vessels that carried their goods.

Some invested a part of their money in breweries, distilleries, ironworks, grist mills, sawmills, fulling mills, and other industrial enterprises, and provided most of the early capital needed in manufacturing. There are records to show that colonial merchants "put out" flax, wool, and cotton to be spun and woven in rural sections. The influence of merchants on the management and operation of the handicraft shops was not great, although merchants often contracted with the artisans for a part of their wares and products.

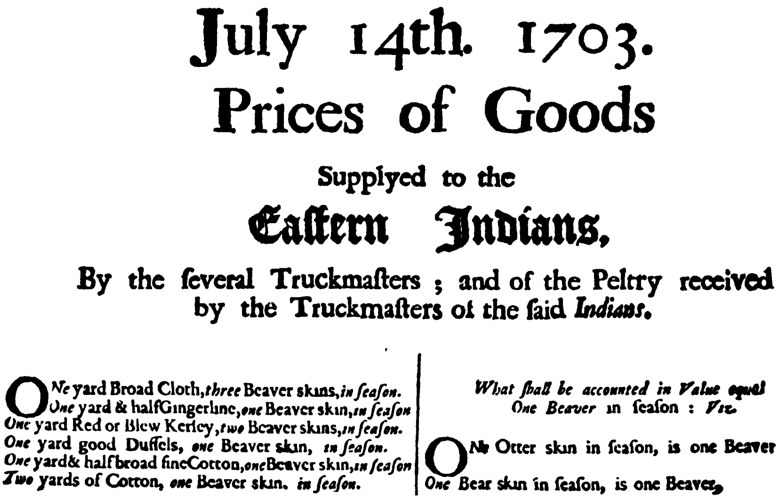
By means of correspondence and travel merchants of different towns maintained business and even social connections with other merchants in the colonies, Great Britain, the West Indies and in other parts of the world. In various seaport towns of the mainland colonies, commercial connections were frequently cemented by intermarriages as kinsmen maintained trading relations in different regions. Jewish families such as the Franks, Lopez, and Harts of Newport, New York and Philadelphia, developed close trading bonds. Within each of the commercial towns, exchanges were established where merchants met daily at a coffee house or an office, where they made contracts, discussed business conditions, and secured news of world affairs.

Problems of Currency

One great hindrance to trade and commerce — both domestic and foreign — was the lack of a convenient medium of exchange which prevailed throughout the entire colonial period and even continued well into the nineteenth century. As trade expanded, the problem became more acute. Barter was common from the first, but many plans were attempted from time to time to provide a satisfactory currency. Most of these were not very successful.

Wampum — a string of shell beads — was a medium of exchange used by the Indians long before the white man came, and was often exacted as tribute from conquered tribes. Its values were so well established by the Indians that the first settlers used it in dealing with the red men and among themselves. The wampum belt, in addition, was an Indian symbol of a message of goodwill, peace, or war between individuals and sometimes between tribes. As a medium of exchange, wampum was widely used in the seventeenth century. The colonists manufactured it and often substituted colored glass beads and imitation substances for the shells. Glass furnaces were built in early Virginia chiefly for this purpose. These adulterations caused fluctuations in value and made the "genuine" wampum more desirable. In 1640, Massachusetts made it legal tender. The use of wampum began to decline toward the end of the seventeenth century as beaver skins came to rival it and took its place as legal tender and in Indian trade.

During the colonial period many different commodity currencies were used because of the scarcity of coin and other suitable forms of exchange. In addition to beaver skins, used as legal tender in most colonies at different times, wool, cattle and corn were authorized as currency in New England; lumber and tobacco in New York; rice, pitch and corn in the Carolinas; and tobacco in Virginia and Maryland. By 1750, tobacco certificates were the chief medium of exchange within Virginia and debts, contracts, and financial transactions were stated in terms of pounds of tobacco. This form of currency, however, was not satisfactory, for tobacco prices fluctuated, with resulting hardships for debtors or for creditors, depending on the direction of fluctuation. At different times, in various colonies, wheat, rye, barley, oats, hemp, flax, corn, butter, tallow, pork, and feathers became legal tender.



July 14th. 1703.
Prices of Goods
Supplyed to the
Eaſtern Indians,
By the ſeveral Truckmaſters ; and of the Peltry received
by the Truckmaſters of the ſaid *Indians*.

ONe yard Broad Cloth, *three* Beaver skins, *in ſeaſon*.
One yard & half Gingerline, *one* Beaver skin, *in ſeaſon*
One yard Red or Blew Kerſey, *two* Beaver skins, *in ſeaſon*.
One yard good Duffels, *one* Beaver skin, *in ſeaſon*.
One yard & half broad fine Cotton, *one* Beaver skin, *in ſeaſon*
Two yards of Cotton, *one* Beaver skin. *in ſeaſon*.

What ſhall be accounted in Value equal
One Beaver in ſeaſon : *Viz.*

ONe Otter skin in ſeaſon, is one Beaver
One Bear skin in ſeaſon, is one Beaver,

In the Library of Congress

INDIAN TRADE — A FACSIMILE OF A BROADSIDE

With the exception of the coinage of the pine tree shillings, together with sixpences and threepences, in Massachusetts (1652–1684), the British government permitted no coins to be minted in the colonies. The Americans clung tenaciously to the British system of pounds, shillings and pence in their transactions and in their bookkeeping in spite of the fact that relatively few English coins were in circulation. Gold, silver and copper coins were brought across the ocean by new settlers; pirates and traders spent English, French, German, Dutch, Spanish, Portuguese and Arabian gold on their occasional visits to the commercial towns; and the silver pieces of Spain, Mexico and Peru found their way into the colonies through the channels of trade. Most coins, however, were obtained in the West Indies trade, as barrels of coins were shipped with other goods in exchange for commodities from the mainland. The unfavorable balance of trade against the northern colonists in their commercial relations with the mother country tended to drain most of the specie from the country in the direction of England.

The use of a variety of foreign coins presented many problems. It was especially difficult to fix the values for the different gold and silver pieces. The Board of Trade in London made several attempts to fix rates for foreign coins circulating in the colonies but without much success. In the last decades of the colonial period merchants in various commercial towns made agreements whereby gold and silver coins were to be received at a definite and fixed value. The agreements were published in the newspapers as occasional changes were made from time to time. Among other problems, the "clipping" and "sweating" of coins impaired their value. "Clipping" was accomplished by cutting from the edge of a coin small pieces which could be sold to the goldsmith or silversmith when enough was obtained. "Sweating" meant the securing of small particles by shaking the coins violently in a bag or other receptacle in the attempt to accumulate the valuable dust. In a later period, milling of coins — providing fine grooves around the edge — put an end to the nefarious and widespread practice of clipping.

Late in the seventeenth century an attempt was made to use paper money. In 1690, Massachusetts issued bills of credit to meet the expenses of the unfortunate expedition against Quebec during King William's War. This example was in time followed by other colonies. Bills of credit were often issued on loans, land, silver or gold plate, or on no tangible security to meet a sudden emergency, to furnish money for the ordinary operations of governments or to provide an adequate currency. All colonies except North Carolina finally succumbed to the dangerous method of increasing the currency. Some issues bore interest; others did not. Some were made complete legal tender; others were restricted in various ways in the payment of debts. Some were payable on demand; others were irredeemable. As all depreciated greatly, creditors forced to take them for debts and all salaried persons suffered. As they declined in value, they tended to drive out of circulation whatever silver and gold there was in a colony. Only a few issues, such as the Pennsylvania issue of 1723, were fairly well managed. Most brought confusion, suffering, and even disaster.

In response to the loud complaints of English creditors, Parliament passed a law in 1751 forbidding any New England government to issue additional legal tender bills of credit. In 1764, the law was extended and applied to all colonies (p. 132). This act led to vigorous protest and much discontent. It was one of the grievances that was aired prior to the Revolution.

The usual method of trading with England and of engaging in large transactions within the colonies was by means of bills of exchange. Such instruments were commonly drawn by American merchants, traders, planters and sea captains on British merchants, who usually provided credit in liberal amounts. The South used such bills heavily as the trade balance with England was not as adverse as in the North. Bills of exchange were drawn on the security of tobacco and other commodities sent or to be sent to England. Northern colonies became markets for the sale of bills drawn in the South and of course bills were drawn directly by northern merchants on English correspondents for goods exported or to be forwarded in the future. In the triangular trade involving three or even more ports, bills of exchange drawn on London merchants were of much importance. The usual term of credit was nine months, within which time a "covering remittance" was expected by the English merchant. The system worked fairly well, although there were continual difficulties due to the circuitous journeys of the bills, the long intervals before they were presented for redemption, the problem of securing bills for small amounts, the fluctuation of rates of exchange, the overdrawing of credit, and to the length of time that elapsed after a bill was protested.

Pirates, Privateers, and Smugglers

Throughout much of the colonial period, pirates who preyed upon shipping had their headquarters in many places along the Atlantic and Gulf coasts and on many coastal islands. The attacks of the Elizabethan sea dogs against the Spaniards had led easily into piracy and from New England's earliest settlement, its shipping suffered by being plundered just off the coast. Early, Massachusetts Bay Colony made piracy punishable by death and sent armed ships to attack the marauders offshore. But as time went on, pirates were welcomed in several of the colonies as they exchanged their gold for the commodities and supplies that they needed. Toward the close of the seventeenth century the Earl of Bellomont was sent from England to North America to suppress piracy. He reported to the home government in 1697 that there was general connivance with pirates on the part of officials and merchants, especially in sections of Rhode Island, in New York and in Philadelphia, "where they not only wink at, but Imbrace Pirats, men and shippers." Increasing complaints to Parliament led to the passage of an act in 1699, suppressing piracy and making it a capital offense. Although Captain Kidd and other pirates were executed under this law, it brought little relief and there followed a period of terrorism all along the coast. As piracy reached its height about 1720, English men-of-war destroyed many groups of buccaneers, reducing the peril considerably. At this time when commerce was greatly expanding, the first marine insurance offices were opened in the colonies and insurance aided in offsetting losses on the high seas.

Many pirates regarded themselves as men following a calling much as any tradesman might. Certain groups were well organized and operated according to accepted rules and laws. For instance, a few outlawed gambling and prohibited women or boys on shipboard, even imposing the death penalty for seducing women at sea. That pirates possessed hoards of buried gold is unfounded and the idea may be credited to the imaginative tales embodied in literature. Pirates quickly spent their plunder and few ever possessed much wealth.

Privateering, though closely related to piracy, was carried on under the legal sanction of a government against enemy vessels. In the colonies, letters of marque and reprisal were granted by the governors under royal warrants to shipowners, authorizing them to send their ships against enemy commerce. The legality of captures was decided in prize courts and profits were divided among the owners of a ship, the officers and the crew, and the government commissioning it as well. During the inter-colonial wars privateering, especially against the French, was widely practiced and was highly profitable. In the French and Indian War, 11,000 Americans were so engaged.

Since privateers carried cannon and usually a large crew, it was difficult to distinguish them from war vessels. On the return of peace, it seemed easy to many shipowners and mariners to continue privateering, thus becoming pirates. At times colonial governments attempted to stop the practice and many condemned seamen were hanged and set up high in chains on an island or along a prominent part of the coast as deterrents to passing sailors.

Smuggling naturally was related to piracy. The indented coastline of the Carolinas with its shallow approaches, and the small islands off Florida, were ideal for nests of smugglers. Up and down the coast smuggling was carried on by buccaneers and at times independently under the direction of respectable merchants who felt that the violation of the English navigation acts was no serious sin against God or men. Small boats, under the cover of darkness, landed goods in bays, inlets, streams and tidal creeks, eluding English officials when supervision or suppression was attempted. Smuggling continued not only throughout the colonial period but for many years afterwards.

The Rise of Marine Insurance

Although the earliest form of indemnity on vessels can be traced to Roman days, marine insurance as we know it today originated in Italy during the Renaissance. It spread to Spain, Portugal, Flanders, and other countries, and was adopted in England in the sixteenth century. By the next century it was fairly well developed in Europe, and London was one of the chief centers. With the introduction of the insurance exchange at the end of the seventeenth century in that metropolis, brokers and underwriters met daily and insured maritime "ventures."

During the first part of the colonial period, American shipowners had to secure the desired protection from their correspondents in London. Often, when a vessel sailed, conditions might have changed and the insurance was refused or voided so that a merchant rarely knew whether his vessel was actually covered or not. In 1721, John Copson opened a marine insurance agency in Philadelphia. A few years later Francis Rawle of Pennsylvania unsuccessfully advocated the establishment of an office for insurance under legislative sanction. Attempts were made in Boston and elsewhere to underwrite marine policies. After the middle of the eighteenth century the business expanded under the leadership of such men as Joseph Saunders, John Smith, William Shee, Thomas Willing, Thomas Wharton and others.

Early methods of insuring a vessel and its cargo were simple. At the broker's office a policy was made out and the amount of coverage together with the rate of the premium determined. The policy was left with the broker and those individuals, usually merchants, who wished to speculate as to whether the vessel would ever reach its destination, each noted after his signature the amount for which he would be responsible. When the total amount of insurance was finally subscribed, the shipper was given a copy of the policy and another copy was filed in the broker's office. If the vessel reached its destination safely, the premium was divided among the underwriters pro rata according to the amount they had underwritten. In case of loss, the broker collected the various amounts from the underwriters for the insured. The broker's fee was about two per cent. The underwriters assumed their risk for a premium that varied from ten to eighteen per cent.

In the policies of that period, there was the usual stipulation that the assurers were willing to bear the "adventures of peril" including those of the "Seas, Men of War, Fires, Enemies, Pirates, Rivers, Thieves, Jettesons, Letters of Mart and Counter Mart, Surprisals, Taking at Sea, Arrests, Restraints and Detainments of Kings, Princes, or Peoples of what Nation, Condition, or Quality forever, and Barratry of the Masters and Mariners." In order to give legal sanction to the document most policies further provided that they should "be of as much force and effect as the Surest Writing or Policy of Assurance heretofore made in Lombard Street or elsewhere in London." It was not until insurance companies were chartered in the latter part of the eighteenth century that marine insurance became increasingly stable, less speculative, and more businesslike.

British Commercial Policy

Many early American historians believed that commercial relations between the mother country and the colonies were based on injustice. They painted dark pictures of a tyrannical England and a suffering infant offspring, as the former developed policies that appeared selfish and injurious to the latter. More recent research, however, presents a different perspective and approaches the problem from the point of view that the colonies were but a part of greater England and that regulative and restrictive legislation and orders were an attempt to work out an intelligently conceived plan — notwithstanding weaknesses and contradictions — to build up a self-sufficing empire. Contrary to popular understanding even at the present time, the British mercantile system as embodied in various acts of Parliament, Orders-in-Council, royal instructions to the governors and in other ways, was evolved not to levy tribute upon the colonies, but to provide a system of protection along imperial lines for all those great interests that aided in building material power and wealth.

Many influences and impulses, varying with each settlement, went into the founding of the individual colonies. Some were for corporate or private profit; others were for the oppressed and dissatisfied. But long before all of them were safely organized, statesmen in London agreed more or less upon the reason for their being and upon their place in the national system. This can be seen in the prevailing philosophy of the times — British mercantilism.

During the early years of the American experiments, English policy toward the colonies was defined and put into effect by the king and Privy Council. After the Civil War and under Cromwell's Commonwealth, Parliament sought to control the colonies. With the return of the Stuarts, the stage was set for the formal pronouncement of the prevailing mercantile theory and the attempt to work it out in some detail.

Laws had been passed as early as the fourteenth century encouraging the use of English vessels in English commerce. The first important commercial laws affecting the colonies were enacted by Parliament in 1649 and 1651. These constituted the first legal formulation of a comprehensive system and were adopted by the government of Cromwell, supported by the merchants and shipowners of London. Directed at the Dutch, who at this time were superior to the English in finance, shipbuilding, commerce and the carrying trade, this legislation provided that goods could be carried to or from any English colony only in British vessels with crews at least three-fourths British. Other clauses required that any products from Asia, Africa or America enter England only in British vessels and that goods from European countries be imported into England in ships of the country where the goods were produced or in British vessels. These monopolies were granted not only to Englishmen living in England, but to all who were British, including those who lived in the colonies.

The navigation legislation of the English Puritan regime was re-enacted, consolidated, and expanded in the laws of 1660 and 1663. In addition to restricting most of the commerce of the growing empire to British ships, carrying crews that were at least three-fourths British, a system of enumeration of goods was adopted (1660). Certain important colonial commodities could be exported from the place of production only to another British colony or to England. The enumerated list at first included tobacco, sugar, raw cotton, indigo, ginger, and fustic and other dyewoods. Later, naval stores, hemp, rice, molasses, beaver skins, furs, copper ore, iron and lumber were added to the expanding list. Another aspect of the system provided that all European and Asiatic goods and manufactures would have to pass through English ports before being sent to the colonies (1663). A few exceptions were made, such as salt and wines from southwestern Europe and the Wine Islands and food products from Ireland and Scotland. The Navigation Act of 1696 codified the earlier laws. It provided also that all British vessels be registered, that colonial laws at variance with the acts of trade were null and void; it authorized writs of search, and provided for vice-admiralty courts to enforce the law. An attempt was made to make the colonists strictly obey the acts of trade, but after a few years the efforts were relaxed.

The laws applying to colonial manufactures were also important as commercial legislation. The act of 1699, forbidding the export of wool, raw or manufactured. from one colony to another "or to any other place whatsoever"; the Hat Act of 1732, providing that no American-made hats could be exported from any colony; and the section of the Iron Act of 1750, encouraging the production of colonial pig iron and bar iron by relaxing the duties when imported into England, are examples of restrictions on or encouragement to commerce. Another type of commercial legislation applied to the bounties paid by the British government on naval stores and other commodities. This has already been discussed (p. 76). It should be emphasized that such laws encouraged certain industries and also aided in expanding commerce, which benefited the colonists.

The conflicting economic interests of the American seaboard and the island colonies resulted in the passage of the Molasses Act of 1733. It directly benefited the British planters of the West Indies who had petitioned Parliament that the "Bread Colonies" be prohibited from exchanging provisions for sugar products from the Spanish, French and Dutch West Indies. It laid a prohibitive duty of ninepence on each gallon of rum, sixpence on every gallon of molasses, and five shillings a hundredweight on sugar imported from foreign colonies to the British plantations. Through smuggling and conniving with officials the effect of the act was minimized, but it did serve as a mild protective tariff until superseded by the less drastic Sugar Act of 1764.

The Board of Trade and Plantations attempted to supervise colonial administration. The Board, the growth of an earlier seventeenth-century committee of the Privy Council, functioned from its organization in 1696 as the chief British colonial office. It had jurisdiction over poor relief in England and ordinary commercial relations with other nations, but it was especially charged with the enforcement of the trade and navigation acts. It was required to be posted about colonial affairs including economic conditions, progress of settlement, statistics of population, actions of the Assemblies, details of revenue, dangers from Indians and foreign colonies and many other phases of colonial life and activity. It heard and investigated the complaints of colonial merchants and recommended to Parliament the passage of legislation within its field. Its voluminous records attest to its varied activities.

The administration of parliamentary legislation pertaining to the colonies was largely in the hands of the governors who were also required to enforce the regulations of the Board of Trade. The impossibility of the task and the indifference of many governors — whose authority varied in the different types of colonies — resulted in a laxness in enforcing policies and in exercising control over the colonists. Then, too, the overlapping jurisdiction of many imperial agencies resulted in inefficiency and often in neglect. There was no clear-cut

From a decoration for the New York Trust Co. *© Griffith Baily Coale*

NEW YORK WATERFRONT IN 1760

authority in colonial administration, for the Crown, Privy Council, Parliament, Board of Trade, Commissioners of Customs, Treasury, Admiralty, War Office, and quite late in the colonial period, the Secretary of State for Colonial Affairs, all had a part in imperial control. The attempt to administer the colonies strictly and to enforce laws, orders, and regulations after 1763 led finally to the Revolution and to the loss of the mainland colonies.

WESTWARD TOWARD THE ALLEGHENIES

Industrial Growth

CHAPTER VI

The American Revolution

Fundamental Causes of the Revolution

The causes of the struggle for American independence were multifold and complex. They cannot be described on the basis of one or two generalizations, as for example, "taxation without representation." Such statements made excellent rallying cries, but fundamentally the struggle lay much deeper. The clash was inevitable as forces beginning early in the colonial period grew. Revolutions are not brewed overnight; they come from long, deep-lying causes. Open discontent that could be fanned into the flames of revolt because of Britain's actions and policies, however, did not come until the colonies had grown into adolescence. The common experiences developed on a distant frontier of the British Empire; receding memories of a British past; the presence of alien groups having no bonds with England; and the feeling of strength, together with a new outlook, brought about by victorious participation in the French and Indian War, were also important factors. The Revolution came after English statesmen made their first serious attempts to administer the Empire in an efficient manner, incidently requiring the Americans to help in supporting it financially.

The Peace of Paris, 1763, which ended the French and Indian War, or the Seven Years' War as it was known in Europe, removed the constant threat of the French in the very heart of the continent and decided that North America should be British. France lost her colonial empire. Only the islands of Martinique, Guadeloupe, and St. Dominique in the West Indies and two small fishing islands in the Gulf of St. Lawrence were left in the New World to that ambitious nation. The treaty, which followed a world war fought in America, Europe and Asia, and on the seven seas by peoples of different races, confirmed many of England's claims that heretofore had been ambiguous or contested; it even added to these claims. It applied to far-off India as well as to the Spanish possession of Florida in America. The Peace of 1763 was most significant and marked an epoch in imperial history.

The question of administering the Empire in a more efficient manner was discussed before the Seven Years' War began. The policy developed in the first half of the eighteenth century to "let sleeping dogs lie," was being increasingly condemned by London statesmen, who about 1750 became outspoken in their demands for more logical practices, especially regarding Indian relations and land speculation in America. The dishonesty of many Indian traders, the arrogance of some officials, the fear of advancing tide of frontier settlement, and their close relations with the French, had brought Indian resentment against the English. The Ohio Company of Virginia, which had petitioned the Crown for a large area of land west of the settlements in 1748, brought the matter squarely before the English government. The Board of Trade and other official agencies sought solutions. On the American side of the ocean the Albany Congress in 1754 recommended Franklin's plan of union in an attempt to settle some of the problems as danger of war with the French and the Indians increased, but without success.

At the close of the French and Indian War, the English government issued the Proclamation of 1763, the result of much consideration. By its terms, parts of the territory acquired by the Treaty of Paris were organized as the provinces of Quebec, East Florida and West Florida. But the section of the Proclamation that became more and more irritating to the colonies and aroused their ire was the provision aimed at conciliating the Indians. Governors were forbidden to grant lands beyond the crest of the Appalachian barrier to anyone. While this policy of limiting the western boundaries of the colonies to the Appalachians had been endorsed by the Albany Congress, its implication came as a surprise — especially to Virginians who had not been represented at the Congress. For at one stroke of the pen, trans-Appalachian migration had been prohibited at a time when settlement was drawing near to the mountains and Americans were looking beyond them. Indian traders were strictly licensed and were bound to observe all regulations that applied to them. The success of the French with a unified policy of conciliating the Indians, on the one hand, and the failure of the English with their mutually antagonistic separate colonial policies, on the other, had been partly responsible for the new policy to control the Indians and restrict settlement. Many colonists voiced their objections to the restriction and several colonies protested on the ground that they had prior claims to the lands involved. In the decade that followed, the restriction became the cause of increasing bitterness against the British government although many settlers paid little attention to the edict and moved into the forbidden territory.

George Grenville became prime minister of England in 1763. His cabinet began to shape a policy that centered in the defense and strengthening of the Empire. The necessity for unity was stressed. But imperial re-organization, vital as it was to Great Britain, was of little concern to most of the colonists. In the same way, the financial burden left by the Seven Years' War — brought about largely by William Pitt's lavish system of subsidies to European allies and even to the American colonies to bring them fully into the struggle — troubled them but little. The announcement that 10,000 troops were to be stationed on the American outposts of the Empire for defense against foreign enemies did bring apprehension, especially when it became clear that the colonists would have to help in supporting them. The Quartering Acts, passed in the years that followed, brought the new imperial plans close home to the colonists.

The new policy of requiring the colonies to give more definite financial support to the Empire became obvious in 1764 when the new Sugar (or Revenue) Act was passed by Parliament. The law undertook to stamp out colonial smuggling in the foreign West Indian trade and at the same time raise a revenue. It cut in half the duties of the Molasses Act of 1733 in the expectation that the lower rates would put an end to the evasion of the law and that merchants would pay the duties on molasses and sugar. The law also placed or increased duties on indigo, coffee, wines, silks, and calicoes; at the same time it expanded the list of enumerated commodities. In addition, the policy of permitting the colonists drawbacks or a remittance of duties on goods imported from foreign countries through England was abandoned. The law also attempted to provide for the enforcement of the payment of duties in the colonies by requiring heavy bonds from shipmasters, ordering governors to be strict in supervising customs and commerce, imposing heavy fines for violations, offering inducements for information against violators, and providing many patrols to suppress smuggling.

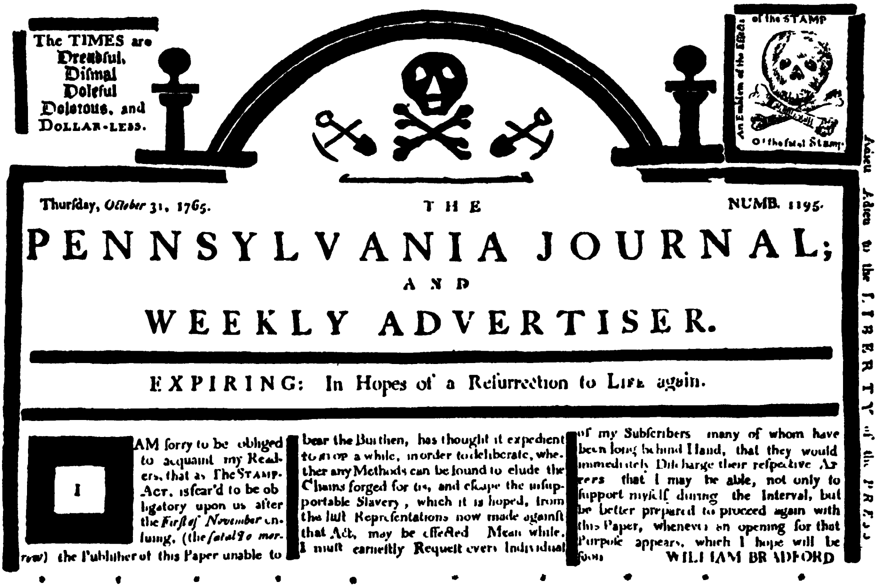
The administration of the American customs was unsatisfactory and was partly in the hands of absentee officials living in England on choice sinecures. It was evident that the navigation laws were often violated and that this was largely due to the laxity, inefficiency and corruption of the home government. Thus, in order to aid in enforcing the Sugar Act, writs of assistance or general search warrants issued by the superior courts of the various colonies came again into increasing use. Authorized as early as 1696, by the Navigation Act of that year and used in Massachusetts especially after 1751, they began to excite controversy about 1761, when opposed by merchants like John Hancock and lawyers like James Otis who raised the question of their legality. The home government quickly suppressed this agitation, ruling that they were legal. Another device to bring about an efficient customs service in the colonies was through the vice-admiralty courts. These courts, long in operation in England, but authorized first in America in 1696, were now re-vitalized. Sitting without juries, they tried cases involving violations of the navigation acts and took away such cases from the courts of common pleas which were usually friendly to violators and whose juries rarely convicted merchants who were known to defy the navigation laws.

About the same time, the Currency Act was passed by Parliament at the solicitation of British creditors. Applied to New England in 1751, the law now was extended to all the colonies (1764). It forbade further issues of paper money except with special safeguards and prevented colonial debtors from settling their sterling accounts in terms of depreciated currency. Coming during the depression that followed the French and Indian War and when attempts were made to enforce the navigation acts, it resulted in bitter complaint from the debtor groups and added to the discontent. It must be considered another grievance which stirred up opposition to the British government.

The new British policies were discussed in taverns, inns, and on the streets. Merchants, legislatures, and town meetings protested against the Sugar Act. Lawyers like Samuel Adams found in its preamble the beginnings of a policy expressed in the words, "taxation without representation." The opposition, while loud, was unorganized, but soon crystallized over another fateful act which aroused most of the colonists.

Under the Sugar Act only one-seventh of the revenue needed to support the new colonial policy was expected at best. Thus to complement this law in producing more revenue the Stamp Act of 1765 was adopted. It did not inaugurate a new policy of British taxation, for such a means had long been prevalent in England. Its extension to the American colonies, however, was new, although it had been proposed earlier by royal governors. At the request of Grenville, the law was adopted. Out of well-intentioned fairness, he deferred the plan for a year to give the colonists an opportunity to suggest means more to their liking. Edmund Burke, with keener perception than Grenville, scathingly stated that the delay allowed time "for all the discontents [of the colonies] to fester and come to a head, and for all the arrangements which factious men could make toward an opposition to the law." It soon became evident that Burke's remarks contained much truth.

The act required stamps on all legal and commercial papers, pamphlets, newspapers, licenses, almanacs, broadsides, notes, bonds, cards, and dice, the cost depending on the type and value of the article taxed. It provided for a Stamp Office in London, an inspector for each colonial district, and a stamp distributor for each colony. It was estimated that the stamps would produce in the mainland colonies and in the West Indies from £60,000 to £100,000. The combined revenues of the Sugar and the Stamp Acts were expected to produce £105,000 to £145,000, about half the cost of providing for the garrisoned forces in America.



The TIMES are Dreadful, Diſmal, Doleful, Dolorous, and DOLLAR-LESS.

An Emblem of the Effects of the STAMP

O! the fatal Stamp.

Adieu, Adieu to the LIBERTY of the PRESS

Thurſday, October 31, 1765. THE NUMB. 1195.

PENNSYLVANIA JOURNAL; AND WEEKLY ADVERTISER.

EXPIRING: In Hopes of a Reſurrection to LIFE again.

I AM ſorry to be obliged to acquaint my Readers, that as The STAMP-ACT, is fear'd to be obligatory upon us after the *First of November* enſuing, (the *fatal To-morrow*) the Publiſher of this Paper unable to bear the Burthen, has thought it expedient to stop a while, in order to deliberate, whether any Methods can be found to elude the Chains forged for us, and eſcape the inſupportable Slavery, which it is hoped, from the laſt Repreſentations now made againſt that Act, may be effected. Mean while, I muſt earneſtly Requeſt every Individual of my Subſcribers, many of whom have been long behind Hand, that they would immediately Diſcharge their reſpective Arrears, that I may be able, not only to ſupport myſelf during the Interval, but be better prepared to proceed again with this Paper, whenever an opening for that Purpoſe appears, which I hope will be ſoon. WILLIAM BRADFORD

From the Rare Book Room of the New York Public Library

WILLIAM BRADFORD'S ANNOUNCEMENT OF THE SUSPENSION OF HIS PAPER DUE TO THE STAMP ACT

The opposition to the Stamp Act became manifest in a variety of astonishing ways. It was expressed in the hostility of merchants, businessmen, lawyers, journalists, and clergymen who protested through writings and speeches; it was seen in the Stamp Act Congress which deplored the menacing of self-rule and furnished a principle of union, fostering the movement which led in time to national unity; it became evident in the embargoes or non-importation agreements against the English merchants as trade came to a temporary standstill; it was emphasized in the organization of societies known as Sons of Liberty that sprang up simultaneously in scattered communities; and it was obvious in the intimidation of British officials and their families, the tarring and feathering of violators of patriotic decrees, the street brawls, the riots, the destruction of property, and the rallies held to denounce British tyranny and to praise the leaders of liberty. In all the colonies, mobs forced luckless agents to resign their offices and destroyed quantities of the hated stamps.

In England, landowners and others who expected the colonists to help support the financial expenses of the Empire and share with them the burden of taxes, were angered at conditions in America. But the English manufacturers, merchants, and shipowners did not welcome the interruption to commerce and trade. Many petitioned Parliament for the repeal or modification of the law. They finally triumphed as events on the mainland and West Indian colonies forced the Grenville ministry to resign. Parliament repealed the Stamp Act, cut the duties on foreign molasses to one penny per gallon, and reduced them on a number of commodities. In order to appease the opposition in England and safeguard its authority, Parliament passed a Declaratory Act, setting forth its right to tax the colonies as well as to annul colonial legislation. The repeal of the Stamp Act brought rejoicing to America. The embargoes ceased; British goods again began to flow into the colonies; dinners were held in honor of George III, and toasts were drunk to his health. The real significance of the Declaratory Act was lost in the excitement as all groups, except some of the merchant class, celebrated. The victory, however, was shortlived for the British budget was still unbalanced and provisions for a unified Empire were still unsolved. Quite evident from the viewpoint of the present — but apparently not so obvious then — was the fact that, if America was to be fitted into the mold of imperial organization, the plans would have to consider American conditions.

When Lord Charles Townshend became Chancellor of the Exchequer and the central figure in the cabinet of the Pitt-Grafton coalition, he was faced with problems of empire left unsolved by his predecessors. He examined the American arguments — set forth by many legal pens — regarding direct and indirect taxation and suggested to Parliament a series of laws designed to raise the needed revenue. As finally passed — in spite of opposition from Pitt, Burke and others — they required duties to be paid at American ports on white and red lead, paints, paper, glass, and tea. Under the provisions of the navigation acts, all these commodities had to be brought from Great Britain, regardless of their place of origin. The revenue so derived was to be used first, for the cost of collecting the taxes and then, to pay governors, judges and other Crown employees who would thus become independent of appropriations from local assemblies. The legislation also established a Board of Customs Commissioners at Boston which was given complete control over American customs. It could revise and reorganize the system, establish ports of entry, appoint officers and spies, send out vessels provided with search-warrants, and do whatever else was necessary.

As the colonists once again became embittered, many things showed their discontent. The New York assembly was disbanded because it would not bear part of the expenses of supporting British troops within the colony. The Circular Letter of Massachusetts suggested protest and argument to the other colonies. The revival of the non-importation agreements, the renewal of the activities of the Sons of Liberty and the climax, the propagandizing effects of the "Boston Massacre," showed clearly the increasing hostility. The agitation of the period, 1767–1770, was in general marked by less violence, except in Boston, than during the months following the Stamp Act. The non-importation agreements were less effective, as new markets for English goods were being found in Europe and the East during the early years of the industrial revolution. In the colonies the embargoes gave a renewed impetus to colonial manufactures in an attempt to supplant English goods.

When Lord North became prime minister in 1770, he adopted a more conciliatory attitude toward the colonies, although his government largely represented landed interests, the Anglican Church and the most conservative merchants. On the day of the "Boston Massacre," Parliament repealed the Townshend duties, except those on tea. As a result, with the exception of one or two untoward incidents, such as the burning of the British revenue cutter, *Gaspee,* the early seventies were comparatively peaceful after the turbulence and agitation of the sixties. Better times, following the lean years of economic depression after the French and Indian War together with the repeal of the hated duties, brought about a desire on the part of the merchant and propertied classes for peace and stability. However, a small group of malcontents and radicals attempted to keep the controversy alive. In spite of the activities of leaders like Samuel Adams to feed the flames of opposition to British oppression and colonial rights, peace was making headway when North's ministry committed a blunder which set in motion a series of events that led directly and inevitably to war.

The Tea Act of 1773 permitted the East India Company to export tea directly to America and to set up wholesale markets in the colonies. The monopoly was given to the almost insolvent company, whose warehouses were bulging with tea and other commodities on the banks of the Thames, in return for surrendering a part of its political power. The refusal of the Americans to import much British tea and their reliance upon Dutch bohea tea were partly responsible for the surplus in England. The company sent its tea fleet to American ports and its arrival clearly showed the sentiment all over the colonies. At New York, citizens persuaded the consignees to refuse the cargo and it was turned back. At Portsmouth, N. H., and Philadelphia, the ships were turned away and the captains sailed back home. At Annapolis the vessel was burned. This incident was called the "Peggy Stewart Tea Party" after the name of the ship. At Charleston the tea was landed, but kept sealed in warehouses. Later, it was sold and the funds used to promote the cause of independence. The spectacular Boston Tea Party brought more serious consequences. Sons of Liberty there, dressed like Indians, and shouting "Boston harbor a tea-pot this night" swooped down on the three vessels and destroyed 342 chests of tea. This marked a crisis. While Franklin and others were condemning the loss of the tea as "an act of violent Injustice" and were seeking other means of attacking the East India Company's monopoly, Parliament rashly singled out Massachusetts for punishment. This served only to unite the colonies and to hasten them into war with the mother country.

The series of punitive laws directed at Massachusetts became known as the Intolerable Acts or the Coercive Acts (1774). The Boston Port Act closed the port of Boston until the East India Company had been reimbursed for the tea destroyed in that harbor and the future loyalty of its citizens assured; the Massachusetts Government Act brought the province more fully under the Crown; the Act for the Impartial Administration of Justice provided that the British soldiers and officials charged with capital crimes be taken to England for trial; and a Quartering Act removed obstacles regarding the immediate billeting of troops in Massachusetts. A fifth law — the Quebec Act — extending the boundaries of Canada to the Ohio and Mississippi Rivers — although not punitive, was used by colonial propagandists to make it appear a menace to the religious as well as civil liberties of the colonists. To Lord North's surprise these laws, intended to restore order in America, brought about strong and unrelenting opposition in all sections and achieved the ends sought by the radicals, who had labored for several years to keep the controversy alive. Moreover, the laws provided the justification for calling the First Continental Congress.

Keeping in mind the varied background of American culture in its social, economic and political aspects, the Revolution, to a great degree, was a revolt against the growing centralized powers of Great Britain and the colonial aristocracy. Most conservatives desired a continuation of British rule or a government strong enough to maintain their privileged position. They were, therefore, reluctant to accept the Revolution. Many Tories fled at the time of the Declaration of Independence or soon afterwards to the West Indies, Canada or to the mother country. Others, including large landowners and prosperous merchants, hoped that the Revolution would not change the framework and organization of colonial society, for if it did, their status would be affected. The radicals — a small minority at first — favored throwing off the yoke of British rule as a means of bettering their condition, especially in achieving freedom and even obtaining a degree of democracy. The Intolerable Acts were viewed in consternation by many conservatives as well as radicals and, against these laws, the radicals were able to fan the sentiment of opposition to British coercion into the full flames of Revolution.

The Continental Congresses

Indignation over the Intolerable Acts brought an almost spontaneous demand for a meeting of representatives from all the colonies to consider the serious situation. Town meetings and committees of safety first suggested the move, which was made concrete by the calls of the Massachusetts Assembly under the leadership of Samuel Adams and by the Burgesses of Virginia. The purpose of "The Congress," as it was known, was "to deliberate and determine wise and proper measures, to be by them recommended to all the colonies for the recovery and establishment of their just rights and liberties, civil and religious, and the restoration of union and harmony between Great Britain and the colonies most ardently desired by all good men." The delegates, including those who might be classed as moderates as well as many radicals, were chosen largely through the agency of committees of correspondence. The gathering was not representative of the colonial governments, but chiefly represented the dissatisfied elements who had the initiative to act, in spite of much opposition from the conservative minority and the disfavor or condemnation of the governors.

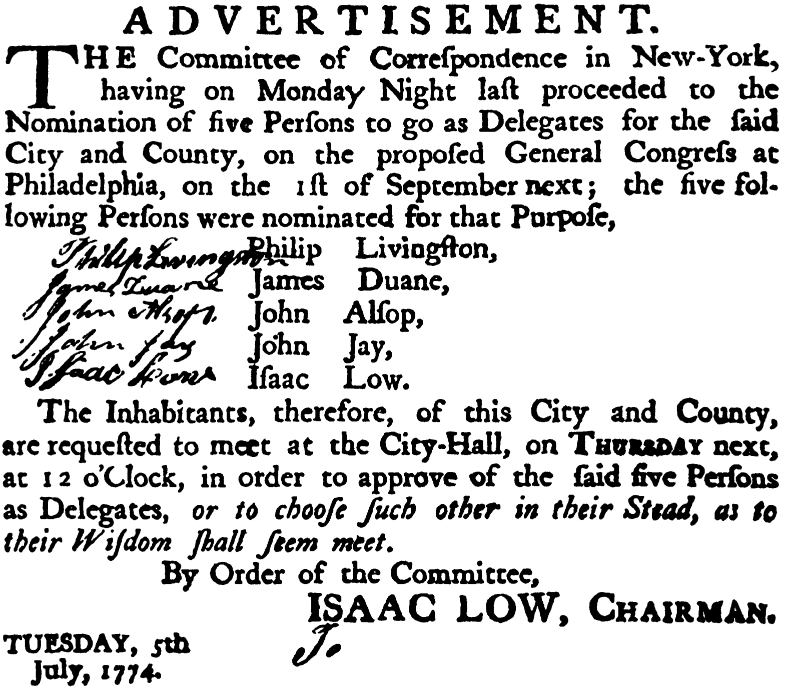
The Congress met at Carpenters' Hall, the home of the Carpenters' Guild, in Philadelphia in September, 1774. The members included such men as John and Samuel Adams of Massachusetts, Philip Livingston of New York, John Dickinson and Joseph Galloway of Pennsylvania, and George Washington and Patrick Henry of Virginia. Of the fifty-six delegates, the agricultural interests were well represented, but most were lawyers. Only eleven merchants were present. The spirit of the Congress soon became evident in the opposition to the abuses of parliamentary authority and in the desire to retain the constitutional rights claimed on the basis of "the laws of nature," the colonial charters, and the English unwritten constitution.

The moderate element in the Congress, under the leadership of Joseph Galloway, a Pennsylvania political leader, student of law, and ironmaster, presented a plan of union to settle the conflict between England and the colonies. It proposed the establishment of a colonial legislature as a branch of the British Parliament. The assent of both bodies would be necessary to make valid laws relating to the colonies. Although favorably received at first, Galloway's plan was finally defeated by the vote of one colony. The proposal was subsequently expunged from the journal of the Congress. The attempt at compromise had failed.

The Congress then agreed to a "Declaration of Rights." The document declared that the Intolerable Acts were "impolitic, unjust, cruel, as well as unconstitutional, and most dangerous and destructive of American rights." It also declared that the colonists had been taxed without their consent, that standing armies had been stationed in their midst in times of peace, and that no attempt had been made to redress their grievances. In order to restore harmony between Great Britain and the colonies, the repeal of a number of the acts of Parliament, specified in the document, was asked. The Congress also decided to prepare an address to the people of Great Britain, a memorial to the inhabitants of North America, and a "loyal address to his Majesty, agreeable to resolutions already entered into."

One of the most important steps taken was the Association — a non-importation, non-consumption, and non-exportation agreement. Its provisions were to be carried out by committees in every county, city and town. Committees of correspondence were required to supervise the work, and enforcement was to be secured by boycotting profiteers. Its purpose also included the encouragement of frugality, the promotion of agriculture, industry, manufactures and the arts, and the discountenancing of extravagance and dissipation, "especially all horse-racing, and all kinds of gaming, cock-fighting, exhibitions of shews, plays, and other expensive diversions and entertainments." Among other provisions, the discontinuance of the slave trade was important. The Congress then completed its work and a final resolution voiced the opinion that if the grievances were not redressed another Congress should meet on May 10 of the following year.

The Association went into effect immediately. Within a few months, the import trade from Great Britain declined 95 per cent. Some English merchants petitioned Parliament, asking "a full and immediate examination of that system of commercial policy, which was formerly adopted and uniformly maintained to the happiness and advantage of both countries" and the application of "such healing remedies as can alone restore and establish the commerce between Great Britain and her colonies on a permanent foundation." In addition to the loss of markets, English merchants were also seriously concerned with the collection of large debts owed them by Americans, especially by southern planters. At the same time, Edmund Burke urged the repeal of the Intolerable Acts, William Pitt warned of foreign aggression if the colonies should revolt, and others also raised their voices on behalf of the colonies.



ADVERTISEMENT.

THE Committee of Correſpondence in New-York, having on Monday Night laſt proceeded to the Nomination of five Perſons to go as Delegates for the ſaid City and County, on the propoſed General Congreſs at Philadelphia, on the 1ſt of September next; the five following Perſons were nominated for that Purpoſe,

Phil Livingston Philip Livingſton,
Jas Duane James Duane,
John Alsop John Alſop,
John Jay John Jay,
Isaac Low Iſaac Low.

The Inhabitants, therefore, of this City and County, are requeſted to meet at the City-Hall, on THURSDAY next, at 12 o'Clock, in order to approve of the ſaid five Perſons as Delegates, *or to chooſe ſuch other in their Stead, as to their Wiſdom ſhall ſeem meet.*

By Order of the Committee,

ISAAC LOW, CHAIRMAN.

TUESDAY, 5th July, 1774.

From a broadside in the New York Historical Society

THE SELECTION OF DELEGATES FROM NEW YORK TO THE FIRST CONTINENTAL CONGRESS

When the Second Continental Congress met in Philadelphia on May 10, 1775, there was much excitement, for blood had been spilled at Lexington and Concord, and Minutemen were gathered near Boston ready for battle with the British. The personnel of the new Congress was similar to that of the old one, but there were several notable additions, including Benjamin Franklin of Pennsylvania and John Hancock of Massachusetts, who was made president. The Congress had no legal or constitutional basis, but by necessity it became a *de facto* central government. As time went on and colonial governments were replaced by state governments, its members were backed by the authority of the state legislatures that chose them. But the actions of Congress at all times rested on the power of the states. From 1775 to 1781 when the Articles of Confederation went into effect, the Continental Congress exercised legislative and executive functions of government.

One of the first important acts of the Second Continental Congress was the Declaration of the Causes and Necessity of Taking up Arms against Great Britain. At the same time preparations for war were made and carried out. An army was organized and Washington appointed commander-in-chief, partly because of his military experience in the French and Indian War and partly because of the leadership of the southern colonies in the American cause. Lord North's Conciliatory Resolution came too late and was rejected. In August, George III issued a Proclamation of Rebellion. This meant that the leaders of Congress and of the American cause might be tried for treason and put to death. The war was on! In the fall of 1775, Congress authorized the creation of a navy. Letters of marque were issued to shipowners authorizing them to prey on British commerce. Congress also took over the direction of Indian affairs and assumed charge of the post-office. Franklin was again made postmaster-general. In the spring of 1776, commerce and trade were opened with the whole world except Britain. The navigation acts and the entire system of imperial control were cast aside. The quest for independence was inevitable and not far away.

The most important accomplishment of the Second Continental Congress in its seven sessions was the Declaration of Independence. Few of the colonists had any thought of independence prior to the outbreak of hostilities. Even after the war began, from September, 1775 to January, 1776, one-half of the colonial provisional governments went on record as opposing independence. At the same time a series of new grievances created sentiment strong enough for independence. The Proclamation of the king calling attention to the "rebellion"; the acts of Parliament prohibiting commerce with the colonies; the employment of Hessians to supplement English troops in fighting the Americans; and Thomas Paine's *Common Sense,* were factors that prepared the way for separation. Paine's pamphlet, which sold by the thousands, emphasized the economic advantages of independence and pointed out the unprofitableness of remaining within the Empire. Complete independence was the only remedy and, with patriotic fervor, he concluded: "The blood of the slain and the weeping voice of Nature cries, 'Tis time to part.' "

While there had been several earlier local declarations of independence, a group of revolutionists in Savannah, Georgia, on February 2, 1776, instructed that colony's delegates in the Congress to vote for all measures that they should "think calculated for the common good." Such ambiguous hints were recorded by groups in other colonies and on April 12, citizens of North Carolina, aroused by a Loyalist uprising, definitely empowered its delegates "to concur with the delegates of the other colonies in declaring Independency, and forcing foreign alliances." Action in Congress, however, was initiated by Richard Henry Lee, who was instructed by Virginia to introduce resolutions declaring "That these united colonies are, and of right ought to be, free and independent states," and proposing foreign alliances and the formation of a confederation. The resolutions were introduced on June 7 and, on July 1, the one declaring independence was discussed and debated. In the meantime Jefferson's committee was appointed to draft the Declaration of Independence. On July 4, it was adopted by the vote of the twelve states which shortly before had adopted Lee's resolution. The New York delegation refrained from voting.

The Declaration was made public on July 6, but it was some time before people in distant regions heard about it. Although containing ideas that were well known, Jefferson set forth the American stand in a succinct manner and in happily combined words and phrases which have lived on. The document embodies the philosophy of the Revolution, the charges against George III, a complaint against the British people for failure to heed American appeals, and the assertion of independence. The adoption of the document meant the parting of the ways between the Patriots and the Loyalists. Many of the latter who refused to join the American cause had to leave the country. Independence also made necessary permanent state governments. But to make valid the Declaration of Independence it was necessary to wage the war to a successful conclusion.

Manufacturing and Industrial Activities

The war stimulated manufactures to a great extent. Even before British goods were cut off at the beginning of hostilities, colonial assemblies formulated policies for encouraging and expanding manufactures. Premiums and bounties were offered for the best specimens of linen, woolens, ironware, woolen cards, gunpowder, saltpetre, and other commodities. Subsidies were given to those erecting slitting mills and steel mills. Loans were made to those engaging especially in the manufacture of munitions and materials of war. In the fateful year 1776, the Continental Congress recommended to the assemblies, conventions, and councils of safety, the establishment of societies for the improvement of "agricultural arts, manufactures and commerce as soon as possible." In a variety of ways manufactures of all sorts were encouraged and the results were most gratifying. All British restrictions were now nullified — although they had never been very effective — and it was largely through the common effort of producing clothes, arms, munitions, supplies, and equipment of all kinds that the Revolution was won.

The struggle with the mother country gave a decided impetus to iron manufacture which was highly prosperous throughout the war. Scattered from New England to the Carolinas and westward to the silent frontier, flaming blast furnaces turned out cannon and shot, as well as cast-iron kettles, salt pans, ovens, and boilers for the armies. The bar iron from the refinery forges and from bloomeries was shaped into many products as, in villages and towns, blacksmiths and workers in iron were busy making weapons of war, as well as tools and implements. If the iron industry had not reached a relatively high stage prior to 1775, it is doubtful whether the colonists could have defended themselves against the British army or could have provided themselves with necessary war manufactures. It should be noted, of course, that French aid was also extremely important, especially in regard to munitions and military supplies as well as to finance.

The progress made in manufacturing rifles was an important factor in winning the Revolution. In the first part of the eighteenth century, many Palatine and Swiss immigrants brought with them to Pennsylvania a knowledge of gun-making. Lancaster county became a center for gun manufacture, and from this region guns and parts of guns were sent to all the colonies. The American gunsmiths made many improvements. By 1775, there had evolved the Pennsylvania long-barreled, small-bore piece, effective at long range in contrast to the smooth-bore, short-range muskets of the British. Various types of American muskets, of course, were produced, even the older-type firearms including blunderbusses and flintlocks or firelocks. In colonies other than Pennsylvania, famous expert gunsmiths could also be found. As the Revolution began, many new gunshops were quickly established in various sections of the country. A complete gunshop of the period contained several barrel forges, a water-powered mill for grinding and polishing barrels, a lock shop with a number of small forges, a foundry for mountings, a shop for forging bayonets and ramrods as well as a mill for grinding and polishing them, together with a fitting and assembly shop. Such a plant represented a considerable degree of specialization in labor and in tools, and also a continuous process of production.

Although the British armies made many attempts — often successful — to destroy shops, mills, forges, furnaces, and other places where manufactures were carried on, the comparative tranquillity of most sections in the North permitted industrial activities, which had been developed before the war, to continue and expand. In the South, which was less organized for the conflict, more subject to local conflict, and the chief battleground during the last years of the war, the tobacco plantations increasingly engaged in household manufactures. The tidewater South was changed from a region depending largely upon the outside world for most manufactured commodities to one in which clothes and even shoes and stockings were made on the plantations, the planters using their slaves and employing their poorer white neighbors for the purpose.

The boycott on English goods, especially textiles, during the troublesome decade of the sixties prepared the way for colonial self-sufficiency in large measure during the Revolution. The supply of homespun and other types of home-made wearing apparel had become an important factor on the farms of New England, of the middle colonies and in the back country of the South long before hostilities were thought of. Such manufactures greatly increased during the war. While the homes and shops were the chief reliance for textiles and many other forms of manufactured goods, privateers soon began to bring in rich prizes laden with merchandise of all kinds. In addition to supplying their own immediate needs, the homes were called upon to aid in furnishing supplies for the army. In June, 1776, each state was asked by the Continental Congress to furnish a suit of clothes, two shirts, two pairs of hose, two pairs of shoes, and a felt hat for each of its enlisted soldiers. Other calls for military materials were issued from time to time. The general supervision of collecting these was in the hands of agents of the states, working under the direction of the clothier-general.

In military regions where armies were operating, there was a great demand for food and supplies not only for American troops, but for the French and the opposing British armies as well. In these districts high prices were paid and the British frequently had the advantage in securing commodities as they gave gold for what they bought while the Continentals most often paid in depreciating paper — bills of credit or quartermaster's certificates. Of course, on both sides there were instances of pillaging and the seizure of provisions. The mass of farmers away from the actual zones of battle were not greatly affected by the demands of the armies.

Commercial Activities

Throughout the Revolution commerce continued. In the British held areas, especially in New York, there was a great traffic in military goods, and many loyalist merchants prospered for a time. In all other seaport regions, trade was carried on, despite British vigilance, with the different colonies. Tobacco was exchanged for needed commodities in friendly ports in the West Indies. The Dutch island of St. Eustatius was notoriously open to American commerce until captured by Rodney in 1781 when the Danish islands of St. Thomas and St. Croix took its place. France, allied with the American cause from the beginning of the war, was extremely liberal in furnishing materials and opening her ports to American vessels, especially her West Indian Islands. The alliance of 1778 looked forward to greatly-increased commercial relations between the two countries. As Spain joined France on the American side that country offered the Americans lucrative markets for lumber and provisions in her West Indian colonies.

Foreign trade changed completely as the navigation acts were broken and American commerce was opened to the world. Most of the old colonial import duties were abolished for the time being and many ports that had held commercial power through custom house monopolies were now forced to share a part of their trade with rivals as the monopolies came to an end. Newport in Rhode Island, and Annapolis in Maryland, now had to share their foreign commerce with the rapidly rising ports of Providence and Baltimore. Some of the new commerce was with northern Europe. Sweden slowly admitted American vessels and in 1780 established direct trade relations. Through that country a new trade was begun with Russia. Commerce with France also grew as the French commercial treaty of 1778, which granted privileges on both sides, went into effect. Tobacco was sought by the merchants of Nantes in return for French manufactures and this trade grew rapidly until 1779. From January, 1777, to March, 1778, ninety-five vessels cleared from Bordeaux for the new American states and promising relations developed with many other French ports. French commercial houses opened branches in America and Americans set up branches in France. Dutch firms also dealt with the Americans. Like the French and Spanish they invested in American privateers. Dutch vessels came to American ports and direct trade with Holland and with the Dutch West Indies was established. Thus, during the Revolution, there developed a promise for a new and prosperous commerce with the rest of the world.

Privateering played an important part during the Revolution. In 1775, most of the colonies issued letters of marque and reprisal to shipowners and the next year the Continental Congress sanctioned privateering and commissioned many vessels. The 1,150 privateers authorized during the Revolution captured numbers of British vessels, including sixteen men-of-war. Almost one-half of the privateers were from Massachusetts, and Rhode Island had nearly 200. American privateers swarmed the West Indies and even sought British merchantmen in different parts of the Atlantic, the British Channel and the North Sea. Risks were great and captures by the enemy frequent, but many loved the adventure that privateering entailed and were attracted too, by the enormous profits which were divided among the owners and crew. Many shipowners, especially in Massachusetts, made fortunes through privateering activities.

While an American navy, consisting of vessels of all descriptions, was developed during the last three years of the war, privateers had to carry on the brunt of sea operations against the British, for only three public cruisers remained in 1781. The naval vessels were used chiefly for seizing British supply ships and merchantmen, the transport of munitions from France, and the carriage of diplomatic agents and dispatches to and from Europe. As the navy declined by reason of capture and shipwreck, 450 privately armed cruisers came into service. The operations of the privateers were financially profitable and also an invaluable aid to the navy.

Financing the Revolution

If taking up of arms by the Patriots against Britain was a bold step, the raising of sufficient funds to carry on the war was even bolder. Valued in terms of gold, the Revolution cost the Americans more than $100,000,000, a large sum for that period. Because of the deep-rooted hatred of taxation, this method of raising much-needed revenue was not used by the Continental Congress, which did not attempt to seize such power. Although Parliament had forbidden further issues of legal tender paper money in 1764, the printing of bills of credit was the first means used by Congress. A few days after the battle of Bunker Hill, it authorized an issue of $2,000,000. By the close of 1779, forty issues totaling $241,552,780 had been authorized.[1] At this time the bills had depreciated to such an extent that it was voted to limit the amount in circulation to not more than $200,000,000. To aid in accomplishing this, new notes were issued for old ones at a ratio of 40 to 1. Several states, especially Virginia, North Carolina and South Carolina, added $209,524,776 to the fiat money, making a total altogether of more than $450,000,000. In addition to the problem of rapid depreciation, continental and state notes were counterfeited by the English and by Americans in spite of the threat of death to counterfeiters printed on the back of the bills of many issues.

Although attempts were made at partial redemption and retirement, continental currency depreciated rapidly. Despite legal tender laws and an attempt to fix prices, the currency continued to fall. By January, 1781, it was valued at 100 to 1. "Not worth a continental" became a phrase of stark reality. Prices of commodities soared to great heights; debtors paid creditors in depreciated currency; and excessive speculation demoralized the financial structure of the country. The final disposition of this currency came in 1790 when Congress under the Constitution accepted the old continental issues in subscription of United States bonds at the rate of 100 to 1.

Another means of financing the war was through a system of direct requisitions on the states. This method had been used by Great Britain in securing colonial aid, especially during the intercolonial wars, but not always with success. Four requisitions were made between 1777 and 1779 for a total of $95,000,000 in paper money. Only $54,667,000 was forthcoming which yielded less than $2,000,000 in actual specie. By the end of the Revolution but $5,795,000 in specie had actually been obtained in money from the states. In 1780, direct requisitions for corn, pork, beef, and other provisions were made on the states, but the results were discouraging, as this way of securing supplies lacked an efficient means of assessment, collection, and record.

Domestic loans at interest rates that varied from 4 to 6 per cent a year brought many millions in paper, but actually about $7,500,000 in specie. Quartermaster, commissary, and purchasing agent certificates were issued to pay for supplies bought or taken from farmers or manufacturers. These were used extensively, Hamilton estimating $16,708,000 of such certificates outstanding in 1790.

Foreign loans were secured from France, Spain and Holland largely because of the influence of Franklin and John Adams. In the early part of the war, the gifts of munitions, supplies and money made by France through the help of the French writer Beaumarchais by means of the fictitious commercial company, Roderique Hortalez et Cie enabled the revolting colonies to carry on the war and to win the important victory of Saratoga. After the French alliance of 1778, France openly aided the Americans although the dummy company continued throughout the war. French loans from 1777 to 1783 amounted to $6,352,500, Spanish loans to $174,017, and Dutch loans to $1,304,000, a total of $7,830,517. Most of this money — but not all — was used to buy supplies in Europe.

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[1] D. R. Dewey, *Financial History of the United States* (New York, 1936), p. 36.

The administration of finances was in a sad state during most of the period. Jealousies in Congress, differences among the states, and the fear of over-centralization, prevented the establishment of efficient machinery to administer finances. The two treasurers — one to receive and the other to pay out public funds — soon gave way to a committee of thirteen which was replaced by a treasury board of five. Not until the beginning of 1781 was the new office of Superintendent of Finance created and Robert Morris appointed to fill it. Bringing a wide experience to the position and seemingly, but not actually, given broad powers, Morris did much to work out a better system during the three years he held office, although he was accused of using the office to further his private interests through speculation with public funds. Although he improved the financial structure, his efforts were hampered by local jealousies, continued refusal by the states to levy taxes, and inadequate provisions in the Articles of Confederation. The Bank of North America, incorporated by the Continental Congress and organized by Robert Morris in 1781, rendered vital financial assistance to the government during the closing months of the Revolution. Among its original depositors and stockholders were Thomas Jefferson, Alexander Hamilton, Benjamin Franklin, John Paul Jones, James Monroe and other prominent men of the period.

The End of the War

On October 19, 1781, General Cornwallis surrendered at Yorktown, between the York and James Rivers, where his army had been trapped by French and American troops. This really marked the end of the war, although military operations of an insignificant nature continued on land and naval operations that were more significant were carried on in the waters of the West Indies. But it was almost two years from Cornwallis' surrender before the definitive treaty of peace was signed.

In spite of a divided people; a Congress with uncertain powers, questionable tenure, and little unity; armies that were ill-armed, poorly clothed, and badly fed, where desertion was common and discipline for the most part never good; and a lack of sufficient supplies, equipment and money to carry on efficiently, the war was brought to a successful conclusion. Speculation as to the chief cause of victory is futile for many factors were involved. The ability and genius of Washington who kept the armies from complete disintegration and destruction; the spirit of Washington and other leaders which permeated to a greater or lesser degree a part of the military and civilian populations; the bungling of English governmental officials as they planned campaigns in London; the general incompetency of most of the British military officers; foreign aid, especially from the French, who, from the beginning, sent supplies, money and troops; the state to which manufactures and commerce had risen by 1775; and the success of the privateers in the capture of ships laden with merchandise, must all be considered. At the close of 1781, England recognized that she was surrounded by enemies — Spain, France and Holland, while no ally gave her assistance or even encouragement. The next year, Lord North finally resigned as prime minister. He had attempted to do so many times during the war, but had retained his position at the solicitation of the sovereign. The king was so chagrined at the culmination of events that he threatened to flee to Hanover and had his yacht ready to cross the English Channel. But his better judgment prevailed. He accepted the resignation of Lord North and was compelled to recognize as his successor Lord Rockingham, the persistent friend of the Americans. George III hated the new minister and at first refused to negotiate with him except through a mediator. But the way was prepared for an equitable peace with the new Rockingham cabinet and the treaty that gave the Americans complete independence was drawn up and ratified.

Peace and Independence

The favorable terms of peace were due partly to the initiative and boldness of the peace commisioners, especially Franklin, Jay, and John Adams. The preliminary treaty of 1782 was made in London between the Americans and the English without consulting the French government. The treaty of alliance of 1778 had declared that neither the United States nor France would make peace without the consent and approval of the other. Fear, especially on the part of Jay, that Spain wanted to exclude the Americans from the region between the Appalachians and the Mississippi River, was largely responsible for the apparent breach of faith. However, after the preliminary agreement was made, the shrewd and diplomatic Franklin was able to soothe

the irritated feelings of Vergennes, the foreign minister of France, to such a degree that he not only overlooked the matter when Franklin pointed out that the final treaty would not be completed without the consent of France, but he also agreed to another loan to the Americans. Soon afterwards, France and Spain made treaties with England and in September, 1783, the final treaty between the United States and Great Britain was signed at Paris. The recognition of complete independence, the generous boundaries to the Mississippi, and the right of Americans to fish off Newfoundland together with permission to dry and cure their fish in certain uninhabited places of British Canada were the chief provisions of the treaty which ended the Revolution and brought into existence a new nation.

STATE HOUSE ROW, PHILADELPHIA

CHAPTER VII

The Rise of a New Nation

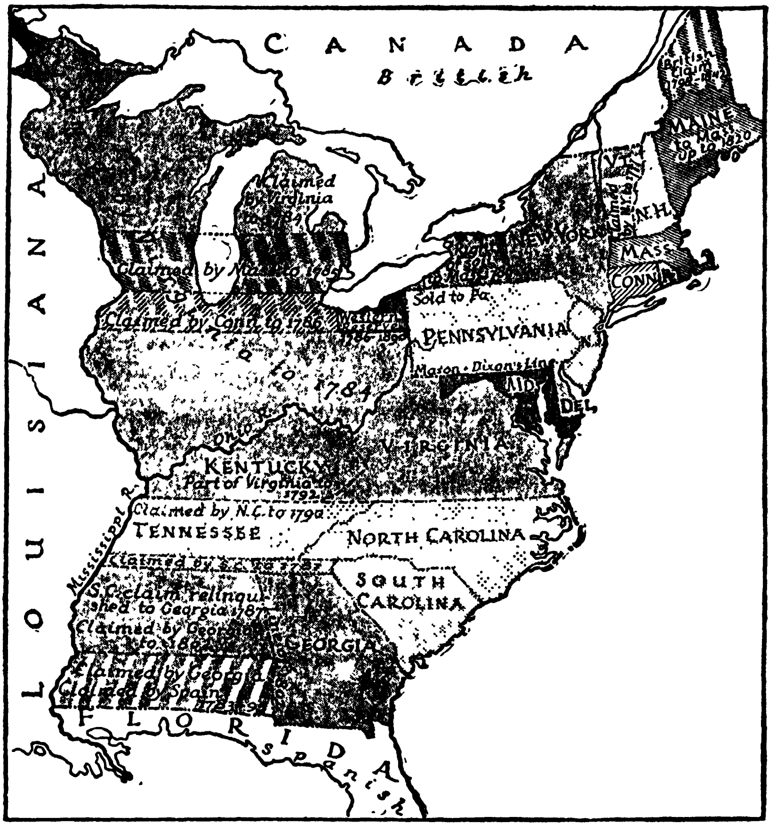
Economic Problems of the Confederation

During the period of the Confederation (1781–1789), the United States existed under its first constitution — the Articles of Confederation. The American federal system was largely accidental, since there were thirteen mainland colonies instead of one. During this period the new United States was a confederation rather than a federal republic, for the states were powerful and the union of states had many marked weaknesses. The debility of the central government made the solution of economic problems more difficult and protracted.

The historian, John Fiske, gave the name "critical period" to the years from the close of the Revolution to the beginning of the new government under the Constitution. Many others have called the era one of "complete disorder" or "chaos." Although there were many serious and inevitable difficulties that had to be faced during the transition from a unit of the British Empire to the real establishment of economic, political and social independence, it is not true to the facts to suggest that there was grave danger of national dissolution or to infer that everything was in disorder. Many years of experimentation, however, were required after the break with the mother country to evolve institutions to meet satisfactorily the varied conditions which independence brought. Naturally many problems that arose proved to be less serious in connection with the states which were sovereign, than in the case of the central government which lacked many powers to make its influence felt.

At the time that the Declaration of Independence was drawn up, the Continental Congress considered the establishment of a confederacy based upon a written instrument. John Dickinson reported a set of articles on July 12, 1776 but, because of war problems, the debates were dragged out for more than a year. A few weeks after the victory at Saratoga, Congress approved a draft of the Articles and sent it to the states for ratification. Accompanying it was a circular letter which declared that the document "is proposed as the best which could be adapted to the circumstances of all; and as that alone which affords any tolerable prospect of a general ratification."

Nine states ratified the Articles of July, 1778, but the new frame of government did not go into effect until March 1, 1781. This was because several of the states, especially the smaller ones, whose boundaries were limited, demanded that the western lands be regarded as the common property of all. When the thirteen colonies declared their independence, seven of them had overlapping and conflicting claims to lands in the West, based on royal grants and charters. New York's claim was based on Indian treaties of doubtful legality. Presumably, all these claims had been eliminated by the Proclamation of 1763 and the Quebec Act of 1774. But after independence was declared, they were revived and Virginia undertook a campaign to recover her territory through George Rogers Clark, a major in the Virginia militia,



LAND CLAIMS OF THE THIRTEEN STATES

who was commissioned by Governor Patrick Henry to conquer the region north of the Ohio and east of the Mississippi. Virginia's claim included much of the West and overlapped those of Massachusetts, Connecticut and New York. South of Virginia were the claims of North Carolina, South Carolina, and Georgia which included lands between their present northern and southern boundaries to the Mississippi River. The smaller states possessing no western territory feared the strength of the larger ones in the Confederacy. The lands were important from the point of view of the fur trade, of their sales value, and as bonuses to veterans of the Revolution. With such land, mighty commonwealths could be established. Maryland held out until convinced that the landowning states would give up their western claims, and when assured of this, ratified the Articles which went into effect. It took several years for the states to cede their lands. Virginia reserved territory in Ohio to satisfy military grants made during the Revolution. Connecticut also retained the Western Reserve area in Ohio which was used for the relief of Connecticut citizens whose property had been destroyed by the British; the remainder was sold to the Connecticut Land Company. Not until 1802, when Georgia transferred her territory in the West, was the last cession of lands made. The cessions gave the Confederation a vast public domain, the basis of wealth and power. Moreover, the quarter of a million square miles of land became a common bond of union.

The Articles of Confederation, which consisted of a preamble and thirteen articles, provided for a "perpetual union" and "firm league of friendship" between sovereign states. They did not provide for a strong central government, but the new Congress was superior to the shadowy rule and extra-legal existence of the Second Continental Congress. Yet, only a single agency of government was established in which executive, legislative and judicial functions were vested. Congress carried out its executive functions through committees or offices. The "president of the United States in Congress Assembled" was the presiding officer and not an executive. No system of national judiciary was provided except that Congress was authorized to establish special courts "for the trial of piracies and felonies committed on the high seas," prize courts "for receiving and determining final appeals in all cases of captures," and was itself to be the last resort on appeal in disputes between two or more states regarding "boundaries, jurisdiction, or any other cause whatever." But the complicated process of setting up commissions described in the articles resulted in few actual accomplishments in settling boundary and other disputes.

In its legislative aspects, Congress had the power to declare and wage war, to make peace, to negotiate treaties, to emit bills of credit and coin money, to manage Indian affairs, to establish post offices, and to carry out a number of less important duties. It lacked power, however, to tax, to regulate commerce and to enforce treaties. All national expenses were to be paid out of a common treasury, but such money was to be secured by making requisitions on the states "in proportion to the value of all land within each State, granted to or surveyed for any person" together with the buildings and improvements on such land. Each state was to raise its quota through taxes levied by its own legislature. In practice, the plan of apportionment was difficult to work out and, after a requisition was made, the states paid what they pleased and sometimes nothing at all. The inability of the government to tax rendered it weak, for there was no provision to coerce the states to pay their requisitions. During the years 1782 and 1783 Congress asked the states for $10,000,000 but received only 15 per cent of it. Throughout the period it was impossible to provide for the total expenses of government. Relief through the issuance of more paper money was impossible as the Second Continental Congress had exhausted the possibilities in that direction. Money was borrowed from the newly-chartered Bank of North America and $2,296,000 was obtained from Holland. To avert trouble with the officers of the Continental army, who were clamoring for their pay, Congress issued certificates of indebtedness, which immediately depreciated. Attempts to amend the articles to permit Congress a revenue through duties on imports failed because amendments to the Articles had to be ratified by all the states. As a result of a lack of money, the central government was handicapped in carrying out its functions; it failed to pay all its interest on the domestic and foreign debt; and was discredited at home and abroad.

Depression Years

With the return of peace following the Revolution, economic depression slowly but surely settled down on the business life of the new nation lasting several years and affecting many different groups. As the demands for war materials and supplies came to an end, those engaged in war industries had to readjust themselves to new conditions and in the readjustment, as usual in the transition from war to peace, there was distress and suffering. The deflation which accompanied the end of military demands and army contracts as well as the close of a profitable era in privateering brought problems which took time to solve.

One of the chief difficulties of the period centered in finance. The financial condition of the central government and of many states was bad. But even more serious were the demands by the agrarian and debtor groups for fiat money in spite of the fact that Continental currency had depreciated to almost nothing and notes issued by the states during the Revolution had also declined drastically in value. Paper money parties appeared and sought political control in state legislatures. The advocates of paper currency were successful in Rhode Island, New York, New Jersey, Pennsylvania, North Carolina, South Carolina, and Georgia. Not only did legislatures authorize large amounts of money which immediately depreciated but such currency was made legal tender, requiring the acceptance of the paper by creditors in payment of debts. Stay laws were also passed which provided for a moratorium or extension of time in paying debts.

In Massachusetts where the paper money advocates failed to get control of the legislature, a serious situation developed. Here, many small property holders, who were losing their possessions through seizure for overdue debts or were facing imprisonment for debt, sought stay laws, the issuance of paper money, and lower taxes. At Northampton in 1786, debtors resorted to massed efforts to intimidate and close the courts to prevent action against them. Then followed an uprising at Springfield under the leadership of Daniel Shays, a veteran of Bunker Hill, demanding that the Massachusetts Supreme Court refrain from indictments against them for treason or sedition. A clash with the militia was avoided when both sides agreed to disperse. The incident in Massachusetts, usually known as Shays' Rebellion, well illustrates the financial problems of the times. Such distress indirectly strengthened the movement that brought about a demand for a much stronger central government.

Many of the handicaps which had held back manufacturing and domestic trade during the period before the Revolution remained, but the efforts to overcome these throughout the Confederation period in time came to a successful fruition. Capital was relatively scarce, wages were high; skilled labor was difficult to obtain; the price of raw materials was not low enough to permit reasonable profits above the risks taken; adequate credit facilities and a sound circulating medium were lacking; and the cost of transportation was excessive. But throughout the period there were evidences of an expanding industrial capitalistic interest, based to some extent on the large fortunes built up by privateering and profiteering during the war, as well as on ordinary merchant and commercial capital.

As British control was broken, the state legislatures assumed the function of incorporation that originally had its authority in the Crown and the colonial assemblies. American capital slowly began to organize systematically as the states issued charters through special acts for business purposes. From 1781 to 1789 about thirty companies were incorporated for building and maintaining roads, canals, and bridges, and for river improvement projects, banking and insurance. At least three charters were granted for the purpose of manufacturing. During these years many efforts were made, also, to extend stagecoach and stage wagon routes and facilities into various regions, marking the beginning of the revolution in transportation. In spite of the general depression, economic progress was made, especially after 1786, in many lines of industrial activity, such as the iron industry, woolen manufacture, and the production of paper.

The dumping of English goods in American ports immediately after the Treaty of Paris added to the difficulty of economic adjustment following the war and was another factor which operated to hold back the development of American manufactures. English fleets sailed to Philadelphia, New York, Boston and other ports, landing calico, woolens, linen, silk, glass, chinaware, furniture, iron manufactures, wines and other commodities. In an attempt to regain American markets at a time when the industrial revolution was beginning to bring increased production, English merchants shipped their goods across the Atlantic and sold them at low prices, often at auction, and even on terms of broad credit in spite of the fact that earlier American debts had not yet been paid.

From the victory at Yorktown to the beginning of the serious depression in 1785, there could be found much extravagant spending and luxurious living among certain classes in the towns and even in some agricultural regions. During these years, travelers wrote of the extravagance and vulgar display of profiteers, of land and mercantile speculation, of economic over-expansion, and of the reckless buying of foreign-made clothes by artisans, mechanics and even farmers. These were among the factors that led to the depth of the depression in 1785 and 1786.

In establishing independence, many in the United States looked forward to a profitable era of trade expansion, free from the burdensome restrictions of the English navigation acts. But only slowly were trade relations established with the rest of the civilized world. The mercantile systems of the various European nations in general operated against the Americans. By achieving independence, the United States had forfeited much of the commerce carried on previously with the mother country and with the British colonies, especially the lucrative trade with the British West Indies. After the conclusion of peace, Great Britain would not permit American vessels to enter her colonial ports, and her refusal to embody any commercial clauses in the peace treaty was a bitter disappointment to the peace commissioners and to Congress. All proposals for commercial agreements were rejected until Jay's treaty was negotiated in 1795, and few commercial benefits were secured from that unsatisfactory treaty.

Certain Orders-in-Council, however, did permit English vessels to carry timber, naval stores, provisions, and breadstuffs produced in the United States to the British West Indies. They also allowed naval stores, pig and bar iron and most raw materials to be imported into England under practically the same conditions as had existed prior to the Revolution — even in American vessels — upon the payment of the same duties as on the same kind of goods imported from any British possession in North America. American manufactured goods, whale oil, and fish oil, however, could not be admitted into England. Regardless of this, American exports of raw and semi-finished material to England and Scotland averaged in 1784–1788 about two-thirds of that of the years 1770–1775. In 1790, the first year that accurate records were kept, over 75 per cent of all the foreign commerce of the United States was with Great Britain, but British ships carried more than half of it. About 90 per cent of American imports came from Great Britain, chiefly in the form of manufactured goods. The hope of many merchants and diplomats during the Revolution to develop trade with France instead of England failed. The old ties with Great Britain were too strong and the Americans, preferring English goods, business methods, and long-term credit again took up commercial relations with England and forgot the hopes and pledges made to France during the struggles and dangers of the Revolutionary conflict.

Although no commercial treaty could be obtained with England during this period to benefit the United States, treaties were made with several European countries. By the treaty of 1782 with the Netherlands, Americans were granted most-favored-nation privileges and American vessels were admitted to the Dutch West Indies. High Dutch duties held back to some extent the development of such commerce. Treaties with Sweden (1783) and Prussia (1785) extended the most-favored-nation treatment but little trade resulted. Attempts to build up commerce with Mediterranean countries were thwarted largely through the raids of the Barbary pirates of Morocco, Algiers, Tunis and Tripoli. Immunity from attack was purchased from Morocco, but the other pirates continued their raids. Little trade developed in this region, except a somewhat restricted commerce with Spain and Portugal which fitted into the economic systems of those countries.

In spite of the restrictions of trade with the British West Indies, commerce in the Caribbean slowly developed. There was continually some illegal trade with the British islands as well as a legal commerce carried in English vessels. Although trade with France declined at the close of the Revolution, the governors of the French West Indian islands from time to time opened their ports to American vessels and relaxed commercial restrictions. By 1785, France, Spain, Sweden as well as Holland had liberalized their colonial laws to permit a certain degree of legal trade with the United States.

American trade with the Orient had its beginnings at this time. In 1784, the *Empress of China* left New York for the China Sea and Canton by way of the Cape of Good Hope. Merchants of Philadelphia, Boston, Baltimore, Providence and Salem quickly grasped the new possibilities and vessels were fitted out to tap the China trade. The early cargoes were made up chiefly of ginseng, a plant believed by the Chinese to possess high curative properties, and also of Yankee notions, and clothing. American vessels carried cargoes of naval stores and certain raw products to England and Holland on their way to the Orient and were able to engage to some extent in trade with the Dutch East Indies and other ports of the South Seas. Returning home from the Far East, Yankee skippers brought tea, China, enameled ware, nankeens, and silks. Another aspect of the China trade had its beginning when Captain Robert Gray sailed to the Pacific Northwest in 1787 with Yankee manufactures which he exchanged with the Indians for sea-otter peltries and other furs and then continued to Canton, where the furs found a ready sale. A three-cornered trade route developed; American hardware, knickknacks and clothing were exchanged for peltries and furs of the far northwest, which in turn were taken to China and exchanged for Oriental goods.

Steps Leading to a Stronger Government

The shortcomings of the central government and the economic problems of the nation led to a demand on the part of far-sighted individuals for a much stronger government. In addition to being financially poor and unable to regulate commerce, Congress lacked the prestige to make worth-while treaties. It has been mentioned that several were made with such countries as the Netherlands, Sweden and Prussia, but they proved to be of little economic benefit. All attempts to negotiate a commercial treaty with Great Britain proved futile as English statesmen countered proposals from John Adams, the American minister at the court of St. James, with the statement that treaties with the entire thirteen states would be necessary. Among other problems with

England were those relating to the occupation by British troops of American northwest posts including Oswego, Niagara, and Detroit. The treaty of 1783 specified no definite time for the withdrawal of the troops, but stated that it should take place "with all convenient speed." English statesmen excused their failure to withdraw the troops on the ground that the Americans had not fulfilled their obligations set forth in the peace treaty to place no obstacles in the collection of the debts owing English merchants and of Congress to recommend to the legislatures of the states that they make restitution to Loyalists whose estates had been confiscated during the Revolution. Congress had done its duty in these respects, but English debts remained unpaid and the Loyalists had received no recompense. The real reasons why English troops still remained on American soil in the northwest were: (1) to command the valuable fur trade of the northern regions, and (2) because of the fear that the withdrawal of the troops would leave the Indians uncontrolled, which would bring serious problems regarding the Indians living in Canada. Not until Jay's treaty went into effect were these difficulties ended.

Several problems with Spain, largely economic in character, likewise could not be solved at this time. After the treaty of 1783 was ratified, Spain closed the Mississippi River to all foreigners, chiefly in the hope of checking the growth of American settlements in the Tennessee and Kentucky country, which depended on the Ohio and Mississippi Rivers for contact with the outside world. While Great Britain and the new United States guaranteed the right to navigate the Mississippi to each other in the peace treaty, Spain controlled the mouth of the river and therefore was in an advantageous position regarding the use of the Mississippi. Another problem related to a dispute over the boundary of West Florida, which together with East Florida had been returned by England to Spain in 1783. Attempts to negotiate a commercial treaty with Spain also failed. The Jay-Gardoqui negotiations of 1785–1787 attempted to solve these problems and steps were taken to work out a treaty. But Jay, convinced that Spain would not yield to the American demands, advised Congress to suspend the right to navigate the Mississippi River for twenty-five years and to leave the boundary question for future settlement in return for commercial privileges which would have chiefly benefited the northern states. Protests from the South and West put an end to the proposed plan. Not until 1795 were these problems solved, when the Pinckney (San Lorenzo) treaty established the free navigation of the Mississippi by the United States, which also gained the "right of deposit," or the privilege of landing goods at New Orleans for reloading on ocean-going vessels. The West

Florida boundary was settled at the same time in favor of the American contention and certain minor commercial privileges were also obtained. The dissatisfaction of the westerners, the ill-success of Spain's war with France, the Jay treaty between the United States and England, and a more liberal Spanish ministry were the chief reasons for the favorable treaty. American commerce on the Mississippi grew as the western states sent their produce to New Orleans where most of it was transshipped to the Atlantic ports, the West Indies, and the outside world.

Another factor which caused dissatisfaction with the Confederation government was its lack of authority to settle controversies between the states. This weakness was quite evident in the many tariffs adopted by the states. Most of the tariffs of this period were enacted to secure revenue, although the laws of a number of northern states attempted to protect their growing manufactures or to encourage new ones. Some states planned their laws in retaliation of British policy and others directed tariffs and tonnage duties against the commerce of other states. The lack of a unified plan worked a hardship on commerce in general and called attention to the need for a unified policy which could be exercised by a central government.

Disputes over boundaries also attest to the weakness of the central government. Almost every state had some sort of a boundary problem. The only interstate trial held under the Articles was in connection with the dispute between Pennsylvania and Connecticut in regard to the present northeastern portion of Pennsylvania. Both states claimed the territory on the basis of their colonial charters. Pennsylvania petitioned Congress and a commission was organized under the terms set forth in Article IX of the Articles of Confederation. The commission unanimously awarded jurisdiction of the territory to Pennsylvania. But other similar disputes went unsettled. One of the most serious was in connection with the Vermont region, which demanded statehood while threatened with dismemberment by New York, New Hampshire and Massachusetts. War was averted by the good offices of George Washington, but it was not until 1791 that the robust frontier republic of Vermont was admitted as the fourteenth state to the union after the boundary disputes were adjusted.

A controversy that ended happily through the efforts of the states involved finally led to a call for the Constitutional Convention. A dispute over the boundaries, commerce, and navigation of the Potomac and Pocomoke rivers and Chesapeake Bay led to the appointment of commissioners by the legislatures of Virginia and Maryland. The group met at Gadsby's Tavern in Alexandria, but on the invitation of

George Washington it adjourned to Mount Vernon. In an atmosphere of genial hospitality and sparkling wines, a satisfactory compromise was worked out. In ratifying the agreement, the Maryland legislature urged the calling of a new conference on commercial questions to include Pennsylvania and Delaware, while Virginia proposed a meeting of all the states to consider the adoption of uniform commercial regulations. This led to the call for the Annapolis Convention to meet in the fall of 1786. But only twelve commissioners from five states met in the State House at Annapolis to discuss the problems resulting from the vexatious restrictions placed upon interstate commerce by the various states. Because of the small representation, the commissioners made no official attempt to discuss commercial problems. Instead, a report was drawn up proposing a convention "to meet at Philadelphia on the second Monday in May next to take into consideration the situation of the United States, to devise such further provisions as shall appear to them necessary to render the constitution of the federal government adequate to the exigencies of the Union." The proposal was sent by the states to Congress, which invited all the states to send delegates to the Philadelphia meeting "for the sole and express purpose of revising the Articles of Confederation."

Dissatisfaction with the Articles had arisen from the time they went into effect and increased as it was discovered that amending them was an almost impossible task. Suggestions for a stronger union appeared as early as 1783 when Pelatiah Webster published *A Dissertation on the Political Union and Constitution of the Thirteen United States,* in which he stressed the necessity for a "supreme authority" having the power of taxation and of enforcing treaties and alliances. Two years later Noah Webster, in his *Sketches of American Policy,* also advocated a more effective central government. Washington, Hamilton, Madison, Charles Pinckney, and others throughout the period expressed the necessity for a strong national power. It has been suggested that those who sent out the call for the Convention of 1787 planned an entirely new central government having strong powers. Such a charge was made by the French chargé d'affaires in a letter he wrote home to the French minister. Whether the statement was true or not, the business and propertied classes desired the change and one year after the delegates met at Annapolis, a new Constitution, providing for a more powerful central government, was signed.

Creation of the Constitution

When the delegates met in Philadelphia on May 25, 1787, two weeks after the scheduled date because the bad spring weather of that year delayed most of the delegates, they took all precautions to keep the proceedings secret and to avoid any premature publicity. The only details of the actual opening of the Convention appeared in *The Pennsylvania Packet and Daily Advertiser* for Monday, May 28, 1787, under the heading of Philadelphia news:

> Friday at the state house of this city, seven states were fully represented in convention: these forming a quorum, they proceded to the choice of a president, and his excellency general Washington was unanimously selected to that important station.
>
> Major William Jackson was at the same time appointed secretary to this honorable board.

No mention was made that the opening meeting had been scheduled for May 14, but that not a sufficient number of delegates had arrived there because of bad weather. Very quietly the momentous Convention, called to revise the Articles of Confederation, opened and carried out its work by creating an entirely new Constitution.

The fifty-five members who attended the Convention during the summer of 1787 varied from strong nationalists like Hamilton, Madison and Wilson, who desired a new Constitution that would establish a strong central government, to those like Paterson, Lansing and Yates, who desired to retain the Confederation, but in a much stronger form. The New Jersey plan, representing this view, was presented as a direct challenge to the large states. However, the Virginia plan became the chief basis of discussion. The champions of compromise included the aged Franklin, Dickinson, Sherman, and others. The Constitution that resulted after a very hot and humid summer's work in Philadelphia was the result of agreement, disagreement, and compromise. The agreements, however, were far more important than the disagreements and the compromises represented concessions that were made in order not to hurt the work of the majority.

The document as it emerged from the Convention was based upon ideas represented in the unwritten English constitution and common law in the light of American experience. Its sources can also be traced to the colonial charters, state constitutions and Articles of Confederation as well as to the teachings of the great political writers including Hobbes, Locke, Milton, Montesquieu, Harrington, Halifax, and Blackstone. The founding fathers had framed a brief and concise document that set forth a constitutional form of government based on grants and prohibitions of power, and on a system of checks and balances. At the close of the Convention several proclaimed that the work was very imperfect and some were even ready to do it over. But they produced a Constitution suited not only to the needs of an agrarian society, but also to a great industrial nation, for it proved to be elastic enough to be modified by amendment, judicial interpretation, legislative expansion, executive order, custom, and tradition as the country expanded tremendously in size, population and in economic development. As originally adopted, it provided for little that was democratic, but definitely recognized the principle of representative government. It was flexible enough, however, to become the basic law of the greatest democracy in the world.

Economic Aspects of the Constitution

Congress was granted eighteen powers, new and old, under the Constitution. A most important new power was the one:

> To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and General Welfare of the United States.

Thus, the most serious defect of the Articles was remedied and Congress now was granted power to levy taxes and also duties on imports as well as excise duties on manufactures, sales, consumption, business transactions, vocations, occupations and privileges. All direct taxes, however, were to be levied in proportion to the population, determined by census enumeration every ten years, and counting slaves at three-fifths of their number. It was also provided that all revenue bills should originate in the House of Representatives, although the Senate could amend bills for raising revenue. Congress was granted power to pay the earlier debts of the government as the following provision was included:

> All Debts contracted and Engagements entered into before the adoption of this Constitution, shall be as valid against the United States under this Constitution as under the Confederation.

The prohibition on the states to levy duties on imports and exports or to lay any duty on tonnage also solved a grievous problem of the Confederation.

Hardly less important than the right to tax was the power granted Congress to regulate foreign and interstate commerce. The problems, ill-feeling, and economic losses which grew out of the trade limitations and discriminations in the earlier period came to an end when the Constitution went into effect. This clause together with the prohibition on the states from levying duties gave Congress the complete right to regulate commerce. The broad meaning of interstate commerce, however, gradually evolved over a period of decades, through court decisions, as new problems arose.

The lack of a uniform monetary system and satisfactory medium of exchange had seriously interfered with commerce, trade and manufactures. To help in remedying this situation Congress was given the sole power to coin money and to determine its value, and also to fix a uniform value for foreign coins which continued to circulate until United States coins were issued in sufficient quantities to supply commercial needs. Nothing was stated about authority to issue paper currency by Congress. States were forbidden to coin money or emit bills of credit. The states, however, avoided this provision by chartering state banks with the power to issue paper notes.

The so-called "elastic clause" became important in time, as the Supreme Court interpreted it more and more liberally. It granted Congress the power:

> To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States or in any Department or Officer thereof.

This clause has permitted the passage of many laws by which the Constitution has been greatly expanded. Examples can be found in the right to establish and supervise national banks as implied in the power to collect taxes and borrow money, and the power to improve rivers and harbors as implied in the power to regulate foreign and interstate commerce and to maintain a navy.

Property rights were safeguarded in several different ways. Congress was given the power to use the militia to suppress insurrections and to send armed forces into a state upon request of a state government for protection against domestic violence. No state could pass a law impairing the obligation of contracts; copyright and patent laws were authorized; fugitive slaves escaping into another state were not free, but should be delivered up on claim to the owner; and the foreign slave trade should not be excluded before 1808 and during that period should not be taxed more than ten dollars a head. The apprehension of the southerners relating to the northern attitude toward the southern slave trade was well founded for Congress promptly imposed the maximum (ten dollars) tax on imported slaves and at the earliest possible moment forbade the importation of slaves, although the southern legislatures had abolished the foreign slave trade prior to 1808.

Ratification of the Constitution

The submission of the Constitution by Congress to the states for ratification resulted in a lively campaign. Opinions at first were favorable to the Constitution, but as groups in different parts of the country studied the document, they began to take a stand for or against it.

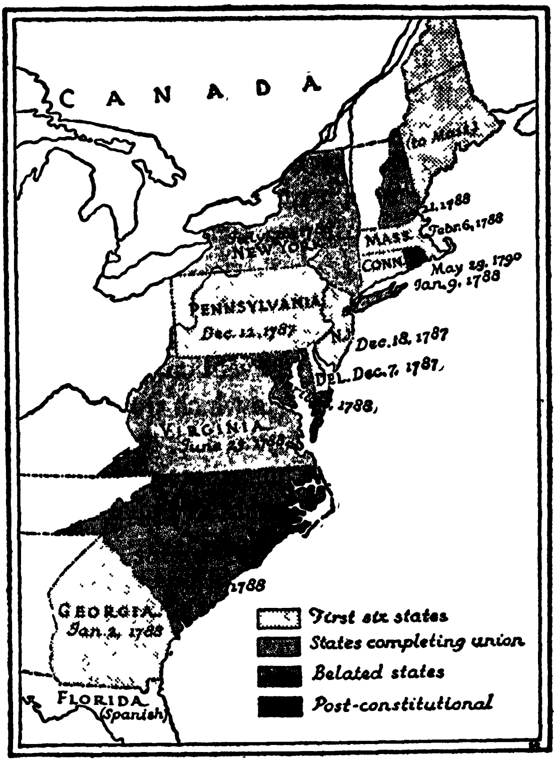
In fact, two national parties arose — the first in the history of the United States — for earlier parties, whether Whig, Tory, paper money, or others, were local and not national in scope. Now within the country from north to south were two general groups — the Federalists, led by the signers of the Constitution, and Anti-Federalists, led by those who insisted on states' rights and including such well known men as Patrick Henry, Samuel Adams and George Clinton.

Generally speaking, the chief strength of the Federalists lay in the cities and the regions near the coast, while the Anti-Federalists were stronger in the back country. The former were the wealthy and conservative interests of the country — the business and propertied groups; the latter were for the most part, the debtor and agricultural classes, although some of their leaders were outstanding men. During the campaign there was much oratory on both sides and the country was flooded with pamphlet literature. The most important essays were those which appeared in newspapers under the signature of "Publius" in reply to anonymous papers condemning the new form of government. They were written by Alexander Hamilton, James Madison and a few by John Jay. When the series of essays had appeared, they were collected and published in book form under the name of *The Federalist.* They were designed to influence public opinion in the state of New York in favor of the ratification of the Constitution. The essays are an outstanding treatise of government and a contribution to political theory.

The Anti-Federalists opposed the Constitution on the ground that it provided too strong a central government, that it imperilled the rights of the states, and that it was too aristocratic in safeguarding the rights of property and not the rights of man. The lack of a bill of rights was greatly emphasized. One of those who wrote against the Constitution was Richard Henry Lee, who had introduced the resolution for independence in 1776. In his *Letters from the Federal Farmer to the Republican,* he criticized parts of the Constitution, especially on the grounds that it was undemocratic. He was fair enough to praise other parts of it, but he emphasized that existing conditions did not warrant the immediate ratification of the Constitution as the Federalists contended.

Whether the majority of the people as a whole favored or opposed the Constitution cannot be determined, for the ballot was restricted at the time and was in the hands of the same groups or classes who had chosen the delegates to the Constitutional Convention. Thus the division in general was within the ranks of the enfranchised classes. In many states, however, the qualifications for voting were not high.

Delaware, the first state to ratify the Constitution, required that those participating in the election of delegates to the ratifying convention should own fifty acres of land of which twelve were improved, or £40 in lawful money. Requirements varied somewhat in the states, although in a few only taxpayers were eligible. But many qualified voters in all states for various reasons, including inertia, unconcern, and hesitation, did not vote.



The Ratification of the Constitution

The Constitution provided that the new government should go into effect as soon as nine states should ratify it. In June, 1788, New Hampshire, the ninth state, accepted the Constitution. A struggle appeared in Virginia, but the prestige of Washington and Madison aided in the approval there. New York followed. Several states like New York made ratification conditional on a bill of rights which should be added to the Constitution as soon as the first Congress was elected. When the new government went into operation in the spring of 1789, two states were outside the Union. North Carolina did not ratify the Constitution until November, 1789, and Rhode Island until May, 1790.

Economic Interpretation of the Constitution

While all the economic ills of the country during the period of Confederation were not entirely due to the form of government under the Articles of Confederation, the problems and difficulties of the times gave rise to the demand for a stronger central government which could work more efficiently if given the power to raise money by taxation, restore the evanescent credit of the government, regulate and promote commerce, encourage and protect manufactures, develop satisfactory policies for opening up western lands, and establish law and order in the interests of all. The movement for a stronger government was naturally supported by the business, commercial, manufacturing, and propertied interests.

It has been pointed out by Charles A. Beard and other writers that because of the general prevalence of property qualifications for state legislators, the delegates to the Convention chosen by them were of course men having economic interests which would make them desire a strong government. Most of them were lawyers who came from the towns or near the coast and "were immediately, directly, and personally interested in the outcome of their labors at Philadelphia, and were to a greater or lesser extent economic beneficiaries from the adoption of the Constitution."[1] Beard sets forth his findings that of the fifty-five who attended the Convention, forty were holders of public securities, fourteen of them had invested in lands for speculative purposes, twenty-four had money loaned out on interest; eleven or more were interested in business, manufacturing, and shipping, and fifteen owned property in the form of slaves. No delegate "in his immediate personal economic interests" represented the mechanics and artisans of the towns or the small farming classes. In commenting on this thesis, it is quite evident that some of the delegates were motivated more or less by a spirit of self-interest, which many recent historians have stressed, but it should be kept in mind that while the framers of the Constitution represented the conservative, capitalistic, and propertied classes as opposed to the mass of farmers, they created a stronger government for the important reason that there was a real need for it, if the country was to make economic progress. In so doing they actually did benefit their own groups. The patriotism and public spirit, however, of men like Washington, Madison, Franklin, and others cannot be questioned, for during the dark days of the Revolution they risked everything they possessed — even their lives — in the struggle for independence.

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[1] C. A. Beard, *Economic Interpretation of the Constitution of the United States* (New York, 1913), p. 149 ff.

The economic interpretation of the Constitution is not entirely new. John Adams, second President of the United States, wrote: "The Federal Convention was the work of the commercial people in the seaport towns, of the slave-holding states, of the officers of the revolutionary army, and the property holders everywhere." Other writers brought out this economic viewpoint. This, however, was not the general view, held by most nineteenth century historians, who went to another extreme when, to a greater or lesser degree, they attested that the framers of the Constitution were supermen and idealists. They were in agreement with the English statesman, Gladstone, who stated that the Constitution was "the greatest piece of work ever struck off at one time by the mind and purpose of man."

It was in 1913 that Charles A. Beard set the pattern for the extreme economic interpretation of the creation of the Constitution. Beard pointed out that: "The Constitution was not created by 'the whole people' as the jurists have said; neither was it created by 'the states' as Southern nullifiers long contended; but it was the work of a consolidated group [capitalistic as opposed to agrarian] whose interests knew no state boundaries and were truly national in their scope."[2]

Critics replied to the implication that the Constitutional Convention in its proceedings formed a coup d'état by stating that the thesis "is a deliberate attempt to upset all our traditional ideas as to the motives and purposes of the men who framed our national government"; that it applies concepts of present day problems to the concepts of the past; that it tends to reduce the work of the founders to "a sordid basis of personal interest" while the entire economy and background of the period is not adequately presented; and that "no effort is made to weigh the relative importance of the forces seeking political freedom, religious liberty, or material gain." In evaluating the interpretation, it might be wise to recognize that it is important and contains an element of truth, but that it is only a part of a total complex picture, which omits much that even relates to the motives of the framers of the Constitution. In the words of the Beards: "The heritage, economics, politics, culture, and international filiations of any civilization are so closely woven by fate into one fabric that no human eye can discern the beginnings of its warp or woof. And any economic interpretation, any political theory, any literary criticism, any aesthetic appreciation which ignores this perplexing fact is of necessity superficial."[3]

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[2] *Ibid.*, p. 324.

[3] Charles A. and Mary R. Beard, *The Rise of American Civilization*, I (New York, 1930), p. 124.

Establishing the Credit of the New Government

The most important immediate problems of the new government under the Constitution centered in finance. The development of the government's fiscal policy fell largely into the hands of the financial genius, Alexander Hamilton, the first Secretary of the Treasury. Hamilton was well-equipped for his task, especially in his knowledge of the financial affairs of Britain and other foreign countries. He made recommendations to Congress which became the basis for the laws passed to restore the public credit, and to stimulate general prosperity. Through his inspiration, the financial powers of Congress under the Constitution were shaped, the treasury became solvent, and the young Republic soon acquired a credit that few European nations enjoyed.

Before Hamilton became Secretary of the Treasury, Congress had passed a tariff act and a tonnage law which discriminated in favor of American shipping. These, however, were both essential parts of his system. He found Congress eager and to a certain degree cooperative. It should also be kept in mind that the proposals were made in the light of Washington's cool judgment.

After taking office, the first concern of Hamilton was the indebtedness of the nation. In 1789, the United States owed $11,710,378 to foreign countries and $42,414,085 at home, including principal and interest. In a report to Congress, Hamilton proposed the payment of these debts at par by creating new certificates to be exchanged for the depreciated old ones. In addition, the new Secretary of the Treasury suggested that such Revolutionary war debts of the states that were still unpaid should be assumed by the federal government. He believed that this action would bind the states into a unified loyalty to the central government. He recommended the creation of a sinking fund to stabilize the price of government securities and to provide for repayment of the principal. Most daring of any part of his report was the suggestion for a Bank of the United States, incorporated by Congress, which would provide much needed banking facilities for the government and the country as a whole. He favored an institution patterned after the Bank of England, but having branches in different parts of the country.

In Congress, all agreed that the foreign debts should be refunded in full, and a law was passed to this end, but here complete agreement ended. Opposition appeared when a measure for funding the domestic debt was considered. Bonds and certificates, representing the nation's debt from the time of the Revolution, had been selling as low as 25 per cent. Speculators had bought up many of the securities from the original holders at depressed prices. Payment at par would mean large profits for the speculators. In spite of opposition, and of benefiting the money-changers, the measure passed.

The proposal to have the federal government assume the state debts brought tremendous opposition within the halls of Congress. Some of the states, like New York and Virginia, had reduced their debts considerably. The debt of Massachusetts was large, as was that of South Carolina. It was natural that the states with large debts and also those who held state securities should be impressed with the wisdom of Hamilton's proposal for assumption. The remonstrance of Virginia to the plan, drafted by Patrick Henry, caused Hamilton to say: "This is the first symptom of a spirit which must either be killed or will kill the Constitution of the United States." The failure of the measure in the House did not cause Hamilton to despair. Instead he skillfully worked out a plan to insure success. Jefferson had returned from Europe to take up his duties of Secretary of State. With Jefferson's assistance, Hamilton procured an agreement by which southern votes in Congress were to secure the assumption of state debts when the bill came up again, in return for northern votes to locate the na-

He in a trice struck Lyon thrice
Upon his head, enrag'd Sir.
Who seiz'd the tongs to ease his wrongs,
And Griswold thus engag'd, Sir
Congress Hall,
in Philad.a Feb 15.1798

From the Library of Congress

CONGRESSIONAL PUGILISTS

During a session of Congress in Philadelphia in February, 1798.

tional capital on the banks of the Potomac. This issue was a serious one at this time, for many different locations were being advocated including New York, Philadelphia, Trenton, Princeton, Baltimore, and on the banks of the Susquehanna. The agreement between Hamilton and Jefferson went through as planned. Measures were passed for the assumption of the state debts and for location of the capital at Washington. Many years later, Jefferson lamented the fact that he had used his influence for assumption, stating somewhat unkindly that "the more debt Hamilton could rake up, the more debt for his mercenaries." The question of assumption had arisen in the Constitutional Convention and it was therefore not an entirely new one. The real danger to men like Hamilton was the disintegration of the union.

The proposal for a central bank was made by Hamilton in a separate report in December, 1790. In it, he pointed out the need for such an institution together with its advantages. The proposal brought the defenders of states rights to their feet. Even Madison, a member of the House, opposed it on constitutional grounds and called attention to the fact that the Constitutional Convention had rejected a proposal granting Congress specific powers to incorporate.

Hamilton defended this part of his program on the ground that a central bank could serve as a fiscal agent of the government, provide a depository for public money, regulate the currency, and assist in increasing active capital so necessary if commerce and manufacturing were to expand. For the first time in American history, he suggested that such an act of Congress would be constitutional on the basis of the implied powers of the Constitution, but each implied power must rest, he asserted, on expressed powers and in the "necessary and proper" clause. He also pointed out that Congress representing a sovereign state possessed "resultant" powers — those that any sovereign state could assume and the right to incorporate was one of these. When Congress voted on the measure, it passed and Washington signed it after much consideration and consultation with his cabinet.

The bank was chartered for twenty years and was capitalized at $10,000,000. The government could hold one-fifth of the stock and on that basis could appoint one-fifth of the directors. It was authorized to receive deposits, to make loans to individuals and to the federal and state governments, to handle deposits and disbursements for the Treasury, to issue notes up to the amount of its capital and deposits, and to establish branches. Its main office was opened in Philadelphia in 1791 and it played a most important part in the economic life of the young republic, especially in stabilizing the developing banking system of the country. Beginning in 1796 the government began to sell its bank stock and during Jefferson's administration disposed of its entire holdings. Foreign investors bought up much of the stock. When the charter expired in 1811, Congress refused to renew it.

The establishment of a system of coinage and a mint was based on another Hamiltonian report. The Mint Act of 1792 created a mint in Philadelphia and established a bimetallic standard. The silver dollar was to contain 371 grams of silver, the content of the Spanish dollar. The ratio between gold and silver was set at fifteen to one. Owing to a scarcity of the precious metals, it was not until 1807 that the annual output of coins exceeded $1,000,000.

When the early customs duties failed to produce sufficient revenue, on the advice of Hamilton, Congress passed the Excise Act (1791), imposing taxes on distilled spirits and on stills. This resulted in hardships for the people of western Pennsylvania and the Virginia back country, who turned much of their corn into whiskey, the chief transportable western product. Many grievances, including the concentration of power in the hands of the upper classes under Hamilton's policies, the failure to open the Mississippi to western navigation, the rising price of land due to speculation, the scarcity of a satisfactory medium of exchange, and the establishment of a salaried official class, brought opposition, the flouting of the law, and some violence. On Hamilton's recommendation, Washington ordered out the militia to suppress the "rebellion" in western Pennsylvania. The result was to force obedience to the law and to strengthen the political power of Hamilton and the rising Federalist party. It had the effect of enhancing the prestige of the new government.

Courtesy of "The New York Evening Post"

NEW YORK STAGECOACH IN THE LATE EIGHTEENTH CENTURY

CHAPTER VIII

Westward Ho

The First Advances West of the Mountains

By 1750, the frontier was moving slowly toward the Appalachian Mountains, although the westward spread and dispersion of population was greater in the settlements to the south. The lowland regions in New England are relatively narrow, but broaden so as they continue southward that the mountains in the Carolinas are about 250 miles from the sea. Westward settlement thus became more extensive and scattered in the middle and southern colonies and lands were taken up in the back country of these sections by German, Scotch-Irish, Dutch, English, and other settlers.

The first move of population west of the mountains surged into the region that became known as Tennessee. Attracted by the stories of traders, trappers and agents of early land companies, the first permanent settlers as early as 1769 pushed into the Tennessee region from the back country of Virginia and the Carolinas. In spite of war-like Indians to the west and the Proclamation of 1763 which prohibited going beyond the crest of the mountains, settlements took form along the Watauga River under the leadership of William Bean, James Robertson, and others.

As population increased, the pioneers discovered in their midst a number of criminals who had fled to the frontier to escape eastern justice. Cut off from the reach of the arm of colonial authority by forest and mountain, the settlers established a government under written articles known as the Watauga Association, in effect from 1772 to 1777. Under this form of government, patterned to some extent after that of Virginia, they established manhood suffrage, organized a militia, recorded deeds of lands, issued marriage licenses, tried and punished offenders, and carried on negotiations with the Indians. This Association became the model for many later miniature republics created under similar circumstances as people moved ever westward.

Other groups settled in this area which became Washington county within the state of North Carolina during the Revolution. When that state ceded her western lands to the United States in 1784, the settlers organized the "State of Franklin," in order to secure an orderly government. Although the cession act was quickly repealed, the state of Franklin, with John Sevier as governor, maintained a precarious existence for four years, marked with difficulties with the Indians, intrigues with the Spanish, and ineffective efforts to obtain recognition from Congress and North Carolina. The latter re-established jurisdiction over the region by 1789. After a second cession of its western lands was made by North Carolina in 1790, they were organized as the "Territory South of the Ohio River." In 1796, Tennessee was admitted to statehood.

About the same time, settlements were being made in the Kentucky region. The earliest important leader of this movement was Daniel Boone who gained an interest in the trans-Allegheny West while serving in the ill-fated Braddock campaign against the French and Indians. Typifying the popular concept of frontiersman and backwoodsman, Boone has become America's classic pioneer, a figure almost legendary in history. Lord Byron, John Filson, Timothy Flint and a host of later writers have built around him an aura of legend, myth and rumor through extravagant statement that has mingled fact and fiction without distinction.

Prior to the Revolution, Boone spent some time exploring the Kentucky wilderness. But as early as 1750, Dr. Thomas Walker, scouting for the Loyal Land Company, had traveled through the Cumberland Gap into eastern Kentucky, and the next year Christopher Gist entered Kentucky from the Ohio Valley. Other whites entered the territory and John Findley brought Boone to the region in 1769. In the years that followed, many hunters and surveyors traveled through the country. The first permanent settlements in Kentucky had their beginning in 1775 at Harrodstown, Boonesborough, McGary's Fort and St. Asaph, under the leadership of James Harrod, Daniel Boone, Judge Richard Henderson of the Transylvania Company, and others.

For a decade after the first settlements, frequent and sometimes bloody Indian attacks occurred. Yet people poured into the Kentucky country through the Cumberland Gap and also by way of Pittsburgh and down the Ohio. Between 1784 and 1792, ten conventions were held in the interests of statehood and in 1792, Kentucky was admitted as a state in the union.

Pioneers also moved into the region of Pittsburgh. During the French and Indian War, Fort Pitt was established in 1758, giving the

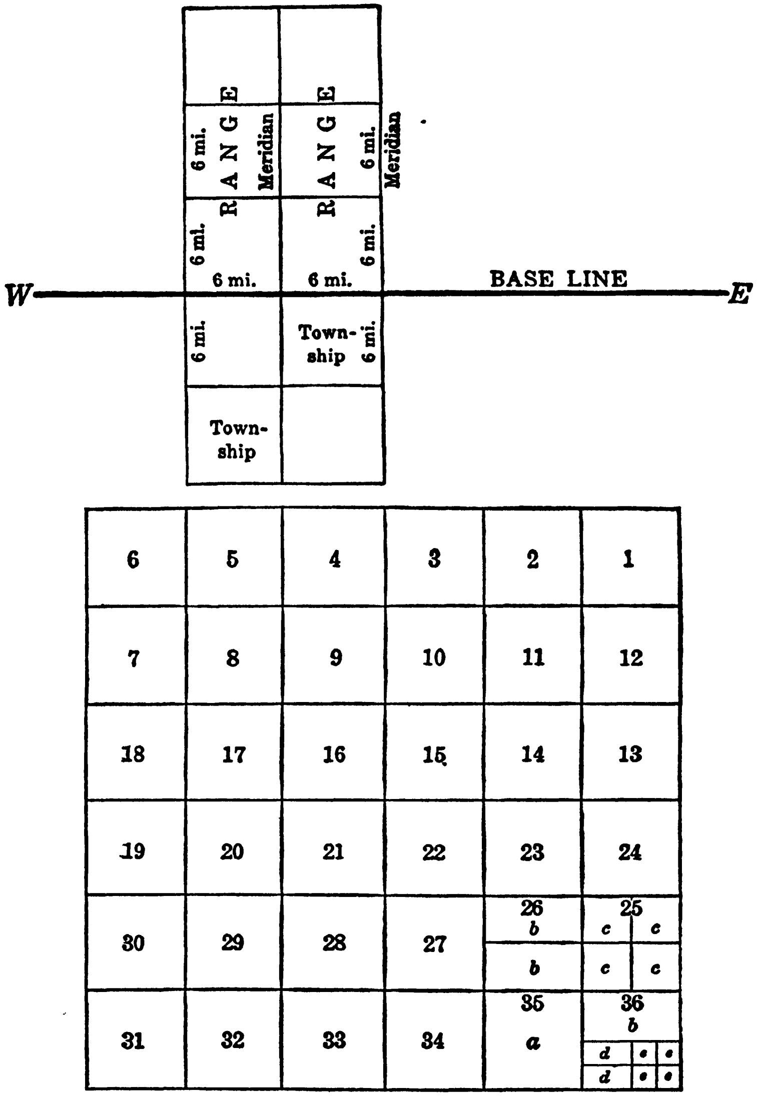
English control of a strategic point in the Ohio Valley. Two military roads, Braddock's Road and Forbes' Road, had been cut through the wilderness and connected it with the eastern settlements. A village with 146 houses and thirty-six huts in 1760 slowly grew under the protection of the fort. The trading post survived Pontiac's Conspiracy and was formally laid out by John Campbell in 1764. Traders, trappers, mule drivers, fugitives from the east, pioneer farmers, and Indians made up its earliest population. The region became a bustling frontier community with saw-mills, tan-yards, lime kilns, trading houses, coal mines, and fields of corn, hay, and vegetables.

During the Revolution, stories of green valleys, clear streams, and abundant game lured many to the region where the Allegheny and Monongahela rivers meet to form the Ohio. After the war emigrants in increasing numbers sought the newly opened West. The Monongahela region became one of the great highways over which stalwart pioneers and their families passed on their arduous and difficult trek westward — pioneers who looked forward to making homes for themselves in the fertile wilderness, staking their strength, courage, and ambitions against isolation, privation and hardship. Among the factors that brought settlers to the western country after 1783, the most important were the removal of British restrictions on westward migration, the years of dismal business depression after the treaty of peace, the failure of crops in Virginia, the encouragement given by crafty land speculators, the land hunger of veterans of Washington's armies, the passage of the Northwest Ordinance and Anthony Wayne's brilliant victory at Fallen Timbers with the resultant Indian treaty. Pittsburgh had become an important "Gateway to the West."

Development of a Land Policy

With independence won, a regular policy for the disposal of western lands was demanded as well as methods and plans for distributing the national domain. Whether or not the West should be held in colonial subservience to the thirteen original states was the question. If not, some other form of government must be established in that region. During the period of Confederation, an excellent policy was worked out for the survey, sale, and government of the national lands. Although the work of a lethargic and enervated Congress, the development of a basic land policy was a decided achievement.

In 1785, Congress enacted a Land Ordinance which provided a scientific system of surveying and subdividing government lands with clear-cut boundaries. For centuries, in all parts of the world, individual landholdings had been bounded and identified by such marks as trees,



From Hockett's Political & Social Growth of the American People. By courtesy of The Macmillan Company.

SYSTEM OF LAND SURVEY

Township on enlarged scale showing sections and subdivisions

a = Section, 640 Acres; *b* = Half-Section, 320 Acres;
c = Quarter-Section, 160 Acres; *d* = Half Quarter-Section, 80 Acres;
e = Quarter Quarter-Section, 40 Acres.

stakes, springs, and large stones, with resulting confusion, legal suits, and individual hardships over disputed titles. The rectangular town system of New England was a departure from this ancient plan. Taking this idea, the Ordinance of 1785 provided that the unit of survey should be the township of thirty-six square miles, based on meridians of longitude and parallels of latitude. Every township was to be subdivided into thirty-six sections each of 640 acres. This plan of survey was used throughout American history as new lands were added to the national domain and were opened up for settlement all the way to the Pacific. There were exceptions to this plan, such as the Virginia military reserve in Ohio and some private land claims in other regions.[1] In addition to providing an efficient survey system, the Ordinance set forth the terms on which the lands were to be sold. In general, following the precedent established by the New England colonies, one section of each township was reserved for the support of schools. The rest of the surveyed land was to be offered at auction in plots of a section or more at a minimum price of one dollar an acre. Few of those who went westward could afford the $640 necessary to buy a section and as a result land sold slowly.

The first surveys under the Ordinance were the Seven Ranges, south of the Geographer's Line, designated to begin at a point where the Pennsylvania boundary intersected the Ohio River and to run due west. The survey was begun in 1785 by Thomas Hutchins, geographer of the United States, but hostile Indians, disease, and bad weather delayed the work and inaccuracies cropped out in the surveys. Land was placed on sale two years later. But the sale of government lands was slow.

Congress was somewhat more successful in disposing of lands to large land companies at greatly reduced prices. The Ohio Company of Associates was organized by a group of Revolutionary War officers who were greatly interested in western lands. Led by Generals Rufus Putnam and Benjamin Tupper, a group of New England war veterans who held certificates of indebtedness from Congress in lieu of pay purchased more than 1,500,000 acres on the Muskingum River for $1,000,000 which could be paid in the depreciated paper promises of the government. The company did not take up all its lands because of financial difficulties, but it organized a successful settlement north of the Ohio River at Marietta in 1788. Another large company interested in Ohio, the Scioto Company, was given the right to purchase nearly 5,000,000 acres. A third, the Symmes Company, composed chiefly of New Jersey and Pennsylvania veterans, secured a large tract between the Big and Little Miami rivers in Ohio. Beginning in 1788, several settlements, one of which became Cincinnati, were made.

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[1] The plan, of course, did not apply to the thirteen original states, Vermont, Maine, Kentucky, Tennessee, and Texas, although the last named state, having control of its own lands, had a similar system.

Skillful lobbying in a moribund Congress in 1786 and 1787 by the Reverend Manasseh Cutler, Samuel Parsons, and General Rufus Putnam, representing the land companies, resulted not only in the large land sales but also in a pattern of government for the West. As early as 1784, "Jefferson's Ordinance," with modifications, had been accepted by Congress. This divided the western lands into territories or colonies and provided a form of temporary government under a governor, secretary and judges, until any territory had a population of 20,000 when a permanent state government could be established.

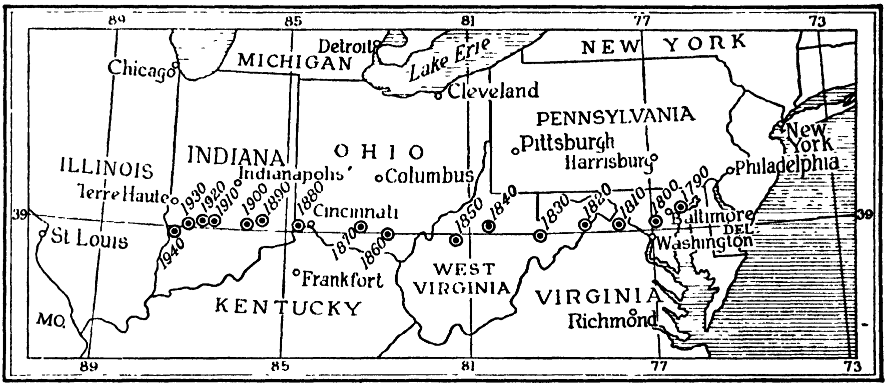
Three years later, the famous Northwest Ordinance provided a form of government for the region north of the Ohio and east of the Mississippi, which in time was to be divided into not less than three nor more than five states. It provided for a temporary government consisting of a governor, a secretary, and three judges, appointed by Congress. As soon as there were 5,000 free adult males in the territory, a representative legislature was to be established, and when the population in a territory reached 60,000, its inhabitants could apply to Congress for statehood. A bill of rights which established religious freedom, prohibited slavery, guaranteed the fundamental rights of English liberty, provided for a just treatment of the Indians, encouraged education, and safeguarded the rights of the future inhabitants of the territory was included in the Northwest Ordinance. Jefferson's Ordinance of 1784 contributed a fundamental principle to America's land policy — ultimate statehood, but it did not provide the details for establishing an administrative structure and was never put into effect. The Ordinance of 1787 laid down principles of government and fundamental rights of which most were re-enacted over and over again as the country expanded.

The first modification of the land policy was made in 1796. The law re-enacted the provisions of the earlier Ordinance in regard to the surveying of western lands and established the office of Surveyor General. Lands were to be sold at auction to the highest bidder at or above the minimum price of two dollars an acre and 640 acres remained the smallest unit that could be bought, but a period of one year was given in which to pay for the land. The law was a failure — less than 50,000 acres were sold while it was in effect — because of the high minimum price and the large acreage that a settler was required to buy. It was followed by the Harrison Act of 1800, named after William

Henry Harrison, first delegate to Congress from the Northwest Territory and chairman of the Committee on Public Lands, who was responsible for its framing. It provided for the sale of western lands in some areas in units as small as 320 acres. The minimum price of two dollars an acre was retained, but settlers were given four years in which to pay and the administrative machinery was revised in the interests of the smaller purchasers as land offices were established on the frontier. The law was amended in 1804 to permit the purchase of 160 acres.

By 1820, it was evident that even the new policy was not a complete success. Large areas of land were sold, but many settlers found it impossible to meet the deferred payments on their lands as their surplus produce brought them little returns. Some farmers, encouraged by high prices for grain and cattle after the War of 1812, bought more land on credit than they could pay for. The Panic of 1819, partly caused by over-speculation in land, revealed the pathetic position of many westerners. Arrearages had piled up rapidly and Congress was forced to pass laws for the relief of the settlers. The government was faced with the problem of taking back about one-third of the land contracted for, valued at $20,000,000. After much agitation a new law in 1820 abolished the credit system; reduced the minimum price at public sale to $1.25 an acre; and provided for the sale of tracts as small as an eighth of a section. Thus, after 1820, anyone with $100 could buy eighty acres of land. This measure remained the basic land law until 1862, when the Homestead Act provided grants of 160 acres free if certain conditions were met.

Many who went to the frontier after 1820 lacked even the $100 with which eighty acres could be bought. Their only solution was "squatting" on land without possessing title to it, a practice that began in Virginia, Pennsylvania, and elsewhere in colonial times. As waves of migration sped past the crude log-cabins and small clearings of squatters, they frequently found that their lands were put up for sale and sold to others, forcing them to move from homes that they had often struggled years to establish. Squatters early besought Congress by petition and otherwise to grant them the right to pre-empt their claims in advance of the land sales so that they would not be required to bid for them against speculators, if they had the money to bid at all. Pre-emption rights were granted to sixteen special groups before 1830 and to others in the years that followed. In 1841, a general pre-emption measure was passed, which for the first time legalized squatting on surveyed lands. Squatters received the right to purchase their lands at the minimum price before speculators could purchase them at higher prices. The act was a victory for the westerners but it did not satisfy them completely. It did not apply to unsurveyed lands and it did not provide free grants to settlers. The law was in effect until 1891. By this time it was seriously abused as powerful interests hired "floaters" to pre-empt valuable land for them. Bribery of land officers and laxity of supervision resulted in much corruption. When public sentiment was aroused, the law was repealed. However, during the early years of its operation, it did protect the squatter and was an important part of the early land system.



Western Movement of the Center of Population as Determined by the Census Bureau for Decades 1790–1940. In 1900, the Center Was Six Miles West of Columbus, Indiana. By 1940, the Center Had Moved Farther West, South and Slightly East of Terre Haute

The Northwest Territory

The region beyond the Appalachians, north of the Ohio, east of the Mississippi, and south of the Great Lakes became known as the "Old Northwest." The Treaty of 1783 which made independence permanent, also granted the Americans this territory, as well as the region to the south. After the several states with claims to portions of this area gave up their rights, it became a part of the public domain, which was formally organized as the Northwest Territory in 1787 (p. 177). Already the Ordinance of 1785 had provided for surveys of townships, subdivided into sections. Payment for land could be made in specie or in Continental certificates; land warrants granted to Revolutionary soldiers were accepted.

Widely scattered over this region in 1787 were some 45,000 Indians, 2,000 French, some Englishmen and a number of Negroes. Settlement was slow partly because of the presence and menace of the Indians. In spite of the fact that several speculative land companies which had obtained large tracts of lands at cheap prices tried to open up new regions in the Ohio country, the earliest settlements beginning with Marietta made little progress until Anthony Wayne's decisive victory over the Indians at Fallen Timbers in 1794. By the subsequent Treaty of Greenville (1795), the Indians surrendered their claims to most of southern Ohio and agreed to move westward. The treaty established a definite boundary between Indian lands and those open to settlement. Much of Ohio then was opened up to settlement and increasing numbers pushed into the region. A territorial form of government was established in 1799, followed in four years by statehood.

A stream of hopeful pioneers continued westward beyond Ohio into Indiana territory. During the War of 1812 settlements grew rapidly and a territorial census of 1815 showed Indiana to have a population of more than 60,000. When the state government was set up in 1816, most of its people lived along the southern edge, along the Ohio boundary line and along the Wabash to Terre Haute. Before other parts of the state were populated, the adjoining territory of Illinois was experiencing waves of migration. A series of Indian treaties cleared the region of Indian claims. In 1818, Illinois was admitted to the Union with a population of 40,000. The rapidity of settlement can be seen in the statistics of population as thousands swarmed into one region after another.

The northern portion of the Old Northwest was neglected as the pioneers pushed into Ohio, Indiana and Illinois. The French had played a role in the early history of the northern region which became Michigan. For 200 years, from the early seventeenth century, it remained a wilderness outpost successively of New France, Great Britain and the United States. To the end of French control (1763) it was a center of Indian trade; by the Proclamation of 1763, the British made it an Indian reserve; and in 1774 it was brought within the limits of the newly-created province of Quebec. While it was a part of the area obtained by the United States under the terms of the treaty of 1783, it remained under British rule during the period when England refused to give up the western posts. Not until 1796 was the American flag raised at Detroit. The territorial area of Michigan was enlarged and contracted from time to time. After the War of 1812 there was much interest in this region on the part of American settlers. Then, as Indian titles were extinguished, knowledge of the fertility of the lands made known, and the Erie Canal opened, Michigan came within the sweep of the westward movement and as the tide of immigration rose, the territory became eligible for statehood. Prior to its admission to the Union, a long controversy ensued over the boundary with Ohio, reaching a climax in the bloodless "Toledo War" of 1833–1836. To settle the question, Congress offered to admit Michigan on condition that a tract of land of 9,000 square miles on the Upper Peninsula be accepted in lieu of the disputed Toledo strip. A convention rejected the proposal, for the land seemed a barren waste, but an unofficial convention of citizens, irritated by the delay, voted to accept the compromise and Congress, without waiting to examine the status of the new Convention, admitted Michigan to statehood in 1837. Not long afterwards it was discovered that the Upper Peninsula contained amazing wealth in the form of large copper and iron deposits.

Wisconsin, to the west of Lake Michigan, possessed an early history similar to that of Michigan. French explorers, missionaries and trappers for almost two centuries were the only white men in the region. Under American control it became a part of the Northwest Territory. During the War of 1812, the Indians and its few settlers sided with the British, but the first American flag flew over Fort Shelby at Prairie du Chien in 1814. After the war, when the British evacuated the region in accord with the terms of the treaty of Ghent, forts were built and the military controlled the area until Wisconsin became a formal territory in 1836. During this period, agents of the American Fur Company as well as independent American fur traders, and lead miners from Virginia, Kentucky and Tennessee led the vanguard of pioneers. Many difficulties arose with the Indians who objected especially to trespass by the miners, for the Indians themselves for years had smelted quantities of lead which they exchanged for goods from American and Canadian traders. The Winnebago War (1827) was followed by the Black Hawk War (1832), and resulted in the cession of the Indian lands. Immigration increased rapidly, the territorial census for 1840 showing 30,000. In addition to those from the older states, Germans, Norwegians, Belgians, Swiss, Irish, and Poles took up lands in this region. When Wisconsin became a state in 1848, it had a population of more than 200,000.

The Old Southwest

The term, the Old Southwest, in general, came to be applied to the region south of the Ohio and as far westward as the Mississippi River, although the historical concepts of the territorial limits were never so exact as those of the Old Northwest. In this general area, the Tennessee and Kentucky regions were settled first and admitted to statehood before the end of the eighteenth century. Soon afterwards planters and farmers from the Old South moved westward to the fertile lands of Alabama, Mississippi and Louisiana as cotton quickly succeeded tobacco as the leading staple crop of the South.

The beginnings of Alabama's history, however, reach back to the Spanish occupation of North America. The region was occupied by the Spanish, French, British, and finally by the Americans. Early in the nineteenth century, planters from the exhausted tobacco lands of the seaboard accompanied by their slaves moved here. The demand for raw cotton from England and the rising factories in the North opened up a market that for a time seemed insatiable. It should be noted that while small farmers, professional men, and others moved into the lower southwest, migration in this region was a little different from that of other sections of the West, in that it included a few of the old and aristocratic families of the seaboard South. Alabama attained statehood in 1819.

The migration into Mississippi was similar in character as was its early history. During the beginning of the nineteenth century, after the Louisiana purchase, a part of this region, like a part of Alabama, was plagued with boundary disputes and questionable land titles. In 1795, the legislature of Georgia before giving up Georgia's public lands to the federal government, as agreed at the time the Articles of Confederation went into effect, sold the greater part of what is now Alabama and Mississippi for the sum of $500,000 to four land companies made up of people of all walks of life and from different parts of the country. Some of the legislators who passed the law were represented in the companies and the "Yazoo land frauds" brought nation-wide attention and criticism. As a result, a new legislature the next year rescinded the act and burned all papers connected with it. Yazoo claimants appealed to Congress as well as to the courts. After years of debate a case reached the Supreme Court (Fletcher *vs.* Peck, 1810) which decided that the rescinding law was unconstitutional. Finally, Congress paid the claimants more than $4,000,000. In the meantime, parts of Mississippi were settled chiefly by cotton growers. Statehood was achieved in 1817, almost two years before Alabama. In 1830 and 1832, the opening to settlement of the Indian lands within the state brought another rush of immigration to this and the adjoining fertile regions of the southwest.

The Acquisition of New Territories

One of the most remarkable aspects of American development has been the acquisition of new territories. To the original area between the Atlantic Ocean and Mississippi River were added in quick succession new regions in the West to which land-hungry settlers quickly moved. By the middle of the nineteenth century, the American flag had been carried all the way to the Pacific, and while vast areas remained unsettled, the older western frontier was pushing farther and farther westward. A new eastward-looking frontier in the far West was in process of development as men sought gold on the Pacific coast and began to move eastward toward the Rocky Mountains.

The first acquisition of land by the new nation was Louisiana in 1803. For more than a generation, that region had been a pawn in European diplomacy. At the end of the Seven Years' War, France gave up all claim to it and Spain's sovereignty was acknowledged. But by the latter part of the century France tried to recover it through diplomatic action. By the secret treaty of San Ildefonso (1800), Napoleon acquired it from the Spanish monarch in return for establishing the Prince of Parma, son-in-law of the Spanish king, on the throne of Etruria, an Italian state. Spain had little profit from Louisiana, but its surrender ignored national prestige and its possible future value. The alienation of a potential empire shocked many Spanish ministers, for the treaty was negotiated without their knowledge. On the other hand, France dreamed once again of the control of the Mississippi Valley and the establishment of a colonial empire in America, a granary for the new European state planned by Napoleon.

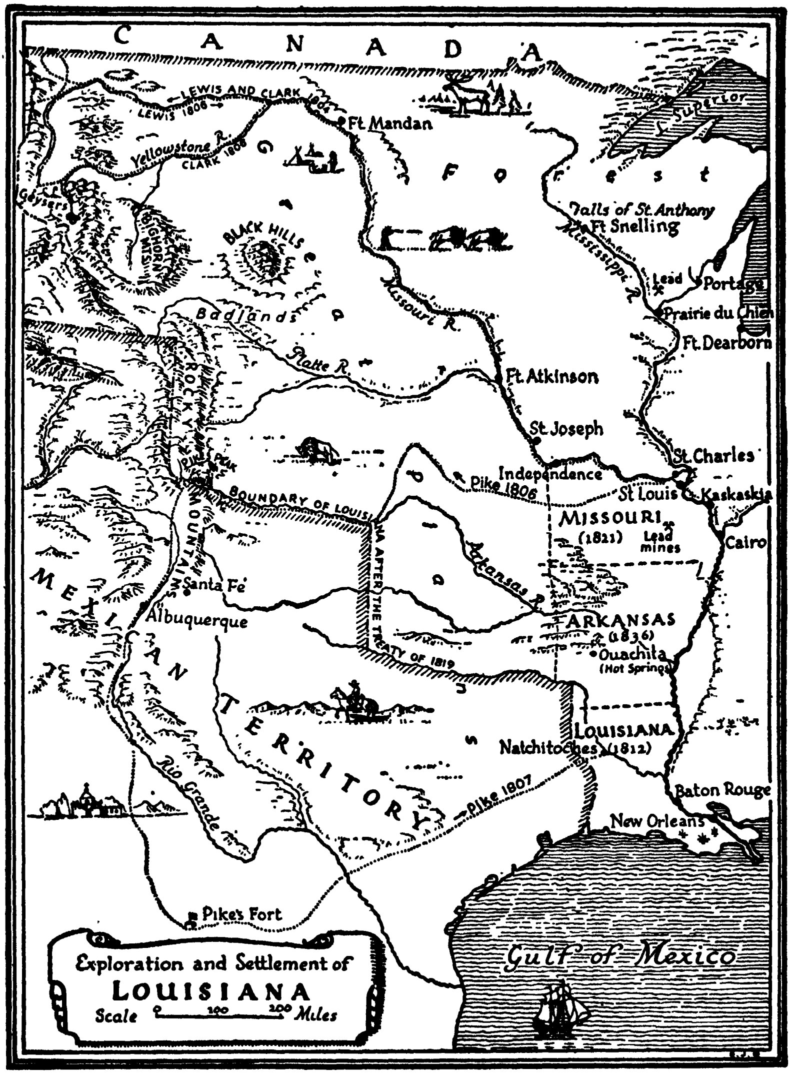
Rumors that Louisiana had been ceded to France reached Jefferson at the White House in Washington at about the same time that news arrived of the closing of the mouth of the Mississippi to American vessels by the intendant of Louisiana acting under secret orders from Spain. This was done by the withdrawal of the right of deposit for transfer of goods to ocean vessels, previously granted in 1795. Much of the commerce of the new western regions of the United States was carried on by way of New Orleans rather than over the mountains eastward, and the inhabitants of the West were disturbed and excited. They looked to the President for a solution. Jefferson lost no time and appointed James Monroe as special envoy to aid Robert R. Livingston, the American minister in Paris, with instructions to offer $10,000,000 for the Isle of Orleans and the Floridas, mistakenly believed to be French. If France refused, the ministers were to seek a small piece of land at the mouth of the Mississippi or the permanent right of deposit at New Orleans.

Before Monroe arrived, Livingston had begun negotiations and was almost stunned by the suggestion of Talleyrand, the French foreign minister, who offered him the whole of Louisiana. The reason for the proposal can be seen in the fact that by the spring of 1803, Napoleon's plans for his American empire had been disrupted. Yellow fever and

Negro resistance had annihilated the French army sent to put down the revolution in the French colony on the island of Santo Domingo under Toussaint L'Ouverture, "the Guilded Napoleon" of the New World. The truce of Amiens, an interruption in the European wars, was coming to an end as England planned to resume hostilities and rumors of an Anglo-American alliance reached France. Napoleon, therefore, sold all of Louisiana to the United States in order to secure some of the finances necessary to continue the war. At the same time he sought in a way to placate the Americans whom he feared might collaborate with Britain.

When Jefferson received the treaty, which ceded the great territory of Louisiana to the United States for $15,000,000, he questioned the constitutionality of so large a purchase of land and suggested an amendment to the Constitution. But the unanimity among Americans in favor of the transaction, the belief of members of his cabinet and other advisers that an amendment was unnecessary, and the need for haste to consummate the deal in an age when communication was slow, led him to stifle his constitutional scruples and to submit the treaty to the Senate. In spite of Spanish resentment and threats — because Napoleon had promised never to dispose of Louisiana to another power — Louisiana was formally transferred to France in November, 1803 and the next month by France to the United States. The extent of the territory was 1,172,000 square miles and included almost all the area that now constitutes fourteen states with a present population of more than 24,000,000. The purchase solved the problem of the control of the Mississippi and marked the beginning of a new era of American expansion.

The boundaries of the new acquisition were vague. The treaty ceded Louisiana to the United States "with the same extent that it now has in the hands of Spain and that it had when France possessed it; and such as it should be after the treaties subsequently entered into between Spain and the other states." This was confusing and contradictory, for the boundaries varied under Spanish and French control. When the United States sought a definite boundary, especially in the southern section, east of the Mississippi River, Talleyrand replied: "I can give you no direction; you have made a noble bargain for yourselves, and I suppose you will make the most of it." In the years that followed, West Florida was occupied by the United States as a part of the Louisiana purchase. Controversies with Spain continued not only over this question but also over East Florida, for with the relaxation of Spanish power in America because of the European wars, the Floridas became a scene of Indian disturbances, filibustering expeditions, and land speculations. During the War of 1812 both Floridas were a battleground for British and American forces. After the war, the Seminoles raided the southern part of the



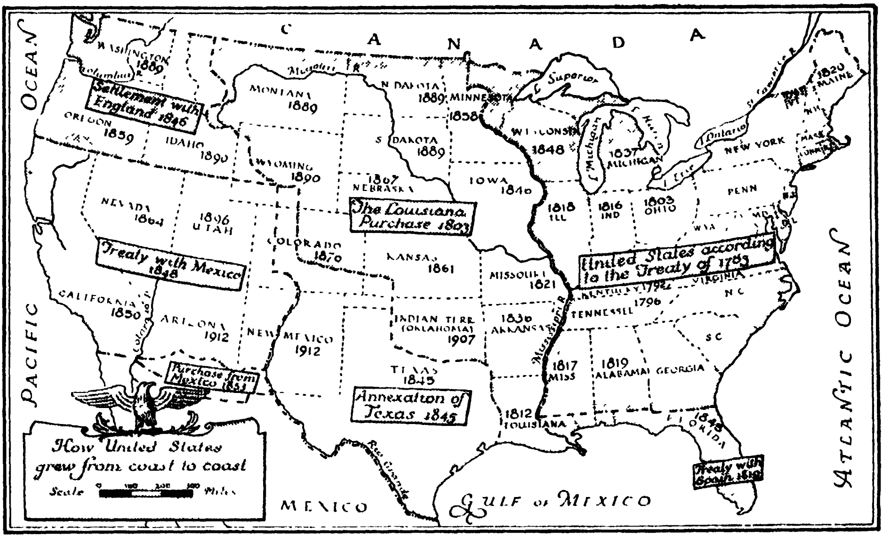
United States, returning to their almost impenetrable thickets and everglades after the raids. Andrew Jackson was ordered to take his Tennessee militia to punish them. He drove the Spaniards out of several regions and seized and hanged two British subjects who were influencing and aiding the Indians against him.

By this time it was evident that Spain, weakened by war, and losing her American colonies through revolution, could not maintain order in the Floridas. Spain decided it would be better to sell them to the United States than to have them seized. The Adams-Onis treaty, signed in 1819 and ratified in 1821, transferred the Floridas to the United States. Spain obtained no money for the deal because the $5,000,000 agreed on was used to satisfy the claims that Americans had against Spain. In spite of opposition from many Americans the government of the United States agreed to the undisputed possession of Texas by the Spanish, thus giving up a claim arising out of the indefinite provisions of the Louisiana purchase treaty. A zig-zag line was drawn from the Sabine River in the south, and westerly to the forty-second parallel at the Pacific. Thus Spain also gave up whatever claims she had to the Oregon territory in the north. A definite western boundary had been marked for the United States and controversies with Spain over shadowy claims were ended. In the same year that the line was drawn Mexico revolted and became independent of Spain. The boundary, however, was accepted by the new Mexican government.

In the year 1821, a few Americans began their trek into Texas. Moses Austin, a land-hungry Yankee pioneer, who had migrated to many places and finally reached Missouri, received permission from the Spanish authorities in Mexico to settle 300 families in Texas. He died before he could carry out his project, and his son, Stephen F. Austin, led the group to the southlands, establishing a colony on the lower Brazos River. Permission was obtained from the new Mexican government which approved the terms of the Spanish grant and for the same reason — to establish a buffer state in the northern part of Mexico. Under the colonization laws passed by Mexico, immigration was encouraged, but settlers were required to become Roman Catholics and to adopt Spanish as the official language. Large grants of land were offered empressarios who, like Austin, led many families there and extra concessions were made to those marrying Mexicans. The magnet of free land attracted settlers chiefly from the United States, but a few from England, Ireland and Germany migrated to Texas. The American settlements grew up to 15,000 in 1827 and 30,000 in 1836. Most Americans were from the South, although there was a sprinkling of settlers from all the states. Many Southerners took their slaves with them in spite of the prohibition of slavery by the Mexican constitution and laws. For a time, the laws were waived in favor of the Americans, but later, slaves were brought into Texas on the master-and-servant contract basis. The Americans did not comply completely with the colonization laws, as they did not adopt the Spanish language officially and few became Roman Catholics.

By 1830, the attitude of welcome to American immigrants by the

Mexican government had changed to outright distrust. Several developments were responsible. President John Quincy Adams and his successor, Andrew Jackson, tried to buy Texas, which aroused Mexican suspicions. Disputes over land titles, also, made some of the Americans assertive. Again, conflict followed when the province of Coahuila-Texas was set up, giving the Mexicans a predominance in the legislature. As a result of suspicion and strife, the Mexican government reaffirmed the laws against slavery, forbade further immigration from the United States, sent Mexican troops to the American settlements, imposed heavier customs duties, and established additional custom houses. American protests brought no results and a struggle for liberty ensued. The swiftly moving events that brought about the Texan war for independence must be viewed in the light of unstable conditions in Mexico itself as governments quickly changed as revolution followed revolution.



The tragedies at the Alamo, Goliad and elsewhere, were followed by the battle of San Jacinto, when the Texans under San Houston decisively defeated the colorful but shifty Santa Anna, president of Mexico. To gain his freedom, Santa Anna promised Texas its independence with boundaries to the Rio Grande. A new Republic of Texas emerged, but Mexico did not recognize its independence. The Texans received aid from the United States in their struggle. Americans fought with them in Texas; money was raised in American cities and private loans were made. A constitutional government was established, but most Texans desired annexation to the United States.

The United States recognized the new republic, but when the proffer of annexation was made to President Van Buren, he declined because he believed that it would involve the United States in a war with Mexico. The subject dropped from public discussion and Texas sought to strengthen its position through foreign treaties and alliances. By 1842, two factors aided a new movement for annexation, this time originating in the United States. President Tyler, a Virginian, desired the annexation and the move was quickened by fear of English designs to control the cotton-growing republic. In 1844, a treaty was submitted to the Senate, but it failed for several reasons: opposition to the President, fear of a war with Mexico, the constitutional question as to whether a foreign state could be annexed, and most important, an election was soon forthcoming.

The election of James K. Polk as President and the success of the Democratic party which had pledged the "reannexation of Texas" led to annexation. By joint-resolution rather than by treaty the offer was made and accepted by Texas which became a state in the Union in 1845. Many northerners, including John Quincy Adams, who as President had tried to buy Texas, now strenuously opposed southwestern expansion on the ground that its settlement was the result of a conspiracy by the "slavocracy" to bring new slave states into the Union. Recent research, however, shows clearly that free or cheap land and the easy accessibility of Texas were the potent attractions to that region as settlers, largely from the Old South, moved directly westward. Recognition of the rising commercial importance of Texas together with apprehension over British activities there resulted in weakening the antagonism of many northerners to expansion in the southwest.

By the time that Texas was annexed, the term "manifest destiny" was in use. It was applied first to the acquisition of Texas by the editor of the *Democratic Review,* who wrote that it was "our manifest destiny to overspread the continent allotted by Providence for the free development for our yearly multiplying millions." The expansionists applied the idea also to Oregon. When Polk became President he was pledged to acquire Oregon. He was determined to have the problem settled as soon as possible. At this time the region was held in joint occupation by Great Britain and the United States, but claims to the area went back into the past.

At the beginning of the nineteenth century, four nations were interested in the Oregon country: Spain, Russia, Great Britain and the United States. Spain gave up her claims in the Florida treaty (1819–1821), by agreeing to the forty-second parallel from the Rockies to the Pacific. Russian fur traders from Alaska, employees of the Russian American Fur Company, had pushed down to California and in 1811 established a colony north of San Francisco Bay, which became a base for an extensive sea otter trade carried on all along the coast. These activities brought forth a clause in Monroe's famous message of 1823. The Monroe Doctrine is comprised of two widely separated paragraphs in the message. The first, applying directly to Russia's encroachments on the northwest coast, asserted that "the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European powers." The next year, Russia yielded all territorial claims south of 54° 40′. This left the problem of ownership of the Oregon territory to Great Britain and the United States.

Great Britain claimed the territory chiefly on the basis of the exploration and discoveries of Sir Francis Drake in the sixteenth century, Captains Cook and Vancouver in the eighteenth, and the activities of British fur traders of the Hudson's Bay Company. American claims were based on the voyages of Captain Robert Gray to the region and especially his discoveries in the Columbia River in the latter part of the eighteenth century, on the Yankee coastal fur trade with the northwest Indians, on the explorations of Lewis and Clark in 1805–1806, and on the establishment of John Jacob Astor's fur trading post, Astoria, in 1811. During the War of 1812, British interests supplanted American in this region, but the treaty of Ghent provided a return of all conquered territory. In the settlement after the war, both nations agreed that this country west of the Rockies should be held in joint occupation and be free and open to the citizens of both powers (1818). This convention was extended in 1827 indefinitely, but either nation had the right to give one year's notice of withdrawal. Several attempts were made from time to time to settle the question amicably, but all failed. In the thirties, Americans, led by missionaries from the East, moved to the region, and a settlement of the question was necessary because land titles and government were involved.

The slogans used in the campaign of 1844 that related to Oregon — "Reoccupation of Oregon" and "Fifty-four forty or fight," were excellent for campaign purposes at a time when many Americans were contracting the expansionist fever. But political leaders had no desire to go to war with Great Britain for the whole territory. After drawing the fire of English statesmen by a general demand for Oregon, President Polk suggested a continuation of the forty-ninth parallel, the accepted line from the Great Lakes to the Rockies, all the way to the coast and across Vancouver Island, with free ports for Britain on the island south of that line. The earlier English contention was for recognition of their claim to the Columbia River, giving them access to the sea. Polk's suggestion of the forty-ninth parallel was rejected by the British minister at Washington because of the proposal to run the line through Vancouver Island which had been held entirely by the British. Polk then asked Congress to give England the required one year's notice to terminate the joint-occupation agreement and to take the necessary steps to protect American citizens in the territory and the "maintenance of our just title." Congress responded at once. In his diary Polk wrote: "The only way to treat John Bull is to look him in the eye." English statesmen, aroused by the move of Polk and Congress, drafted a treaty drawing the line at the forty-ninth parallel, but retaining all Vancouver Island for Great Britain. The President submitted it to the Senate before it was signed, throwing entire responsibility for its acceptance or rejection on that body. The proposal was accepted and the treaty consummated. The compromise — fair to both sides — was influenced by the desire of the two countries to develop low tariff policies mutually beneficial, for Great Britain was approaching free trade as the navigation system was breaking up and the corn laws were repealed, while the United States was adopting the low Walker Tariff of 1846. Another influence on Great Britain was the fact that the Hudson's Bay Company had planned to move its main establishment on the Columbia River to Vancouver Island.

President Polk was an expansionist who envisioned a United States reaching westward to the Pacific. At the outset of his administration, he planned to solve the serious problems with Mexico and at the same time buy land in the southwest from that nation. Mexico had severed diplomatic relations when Texas was annexed and tension was at high pitch between the two countries. Another difficulty arose out of American claims against Mexico for property losses of American citizens and injuries to them in many Mexican revolutions. Attempts had been made earlier to solve this problem but Mexico had failed to carry out the agreements. Another question was the Texan boundary. The citizens of Texas were anxious to have their western boundary clearly defined. They claimed the Rio Grande as the limits, but many Mexicans insisted on the Nueces River as the western extremity, although the Mexican government had never recognized Texan independence. Since the Mexican government was bankrupt, Polk hoped to use the unpaid claims together with ready cash as a lever to settle the claims and the Texas boundary dispute and at the same time acquire a large part of northwestern Mexico, while bringing about a resumption of friendly relations with Mexico.

On the promise of the Mexican government to receive him, John Slidell was sent as a special envoy to Mexico on a secret mission to secure the purchase of New Mexico and California and to solve the other problems as well. He was first authorized to spend as much as $40,000,000 if necessary. These terms were changed later by secret instructions to the assumption by the United States of the American claims against Mexico if the Rio Grande were accepted as the western boundary of Texas; $5,000,000 in addition for New Mexico; and $25,000,000 as well as the assumption of claims if California were added. When Slidell reached Mexico another revolution was in progress and he was not received. Finally he was forced to return home. To Polk, the refusal of Mexico to negotiate a settlement, the upholding of national honor, and the threat of a Mexican attack on Texas at the same time, justified war. Believing that a conflict was inevitable and that the United States should strike first, he began writing a war message. A few days before it was delivered to Congress, word came from the disputed boundary strip between the Rio Grande and the Nueces rivers to which American troops had been sent that a Mexican force had crossed the Rio Grande, engaged in a skirmish with United States dragoons, killed a number of troops, and had captured the rest. The news came in time for Polk to add to his message: "The cup of forbearance has been exhausted. After reiterated menaces, Mexico has passed the boundary of the United States, has invaded our territory, and shed American blood upon the American soil." Two days later, although the United States was entirely unprepared for it, Congress declared that a state of war existed between the two countries.

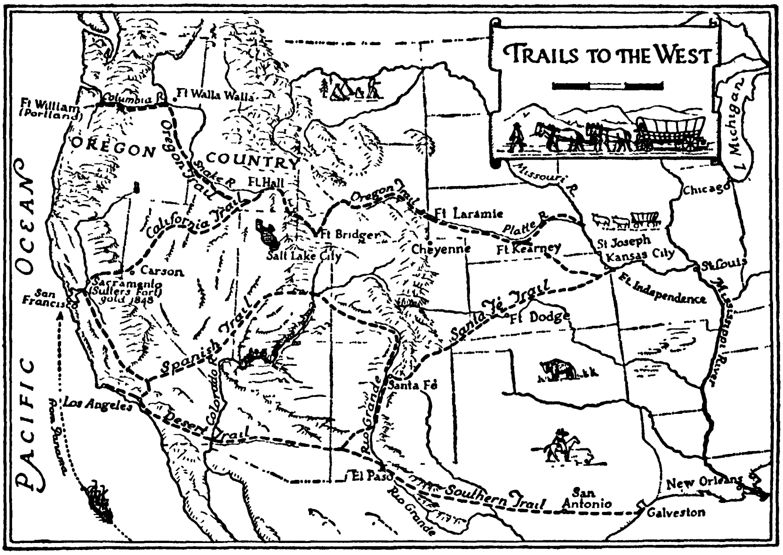
The Mexican war was a relatively short one and complete victory was assured when General Winfield Scott reached the heart of Mexico. Zachary Taylor had struck in the northern sections and Commodore Sloat and Colonel Kearny had occupied California, their main objective. The treaty of Guadalupe Hildalgo, made early in 1848, provided that the completely-vanquished Mexico relinquish to the United States the immense territories of upper California and New Mexico. In return the United States agreed to pay Mexico $15,000,000 and to assume the claims of its citizens, to the sum of $3,200,000. It was felt in many parts of the country that too much leniency had been shown Mexico and that even more territory should be demanded. Manifest destiny became rampant. Much was said and written about saving Mexico from anarchy and about spreading enlightened American institutions over the New World. In Congress members from the South and West demanded more territory; but many northerners, especially New Englanders, felt that too much territory had been secured in that part of the country, for they feared the growing influence of the South and the acquisition of land that might become slave territory. The treaty was ratified after the usual bitter debates. But the acquisition opened up the slavery question which was finally to rend the country in two.

By the treaty of 1848, the United States rounded out her continental possessions to the Pacific. To complete the present southwestern boundary, the Gila River Valley in southern Arizona was purchased in 1853 from Mexico for the sum of $10,000,000. The Gadsden Purchase, as it became known, comprised 45,535 square miles of territory and was obtained largely for the purpose of securing a convenient location for the proposed southern railroad route, although problems relating to the inroads of American Indians were also involved. Southern expansionists continued to demand more territory, even Cuba, but the events leading to the Civil War obscured all other issues.

The Pathfinders in the Trans-Mississippi West

Long before the acquisition of Louisiana, many Americans had shown a curiosity about the area beyond the Mississippi. As early as 1783, Jefferson had suggested to George Rogers Clark that he undertake an expedition to the Pacific, but nothing resulted from the proposal or others that he made. After becoming President, Jefferson secretly asked Congress for an appropriation of $2,500 to equip a party that would explore the country in the region of the Missouri River in the interest of the Indian trade, then controlled by British and French half-breed traders and trappers. Congress granted the request and Captain Meriwether Lewis, Jefferson's private secretary, was appointed to command the expedition. Associated with him in leading the party was Lieutenant William Clark, younger brother of General George Rogers Clark. They were instructed to explore the Missouri and the principal water communications to the Pacific. They were required to note all that they saw and were given elaborate orders regarding careful treatment of the Indians. Jefferson's interest was two-fold: (1) scientific, and (2) in developing the American fur trade. As the expedition began its preparations, news came of the proposed purchase of Louisiana.

Late in 1803, the party was assembled near St. Louis, ready for the start up the Missouri. In the spring of 1804, the expedition ascended the river, wintered among the Mandan Indians, set out again the next spring, crossed the Rocky Mountains, and late in 1805 traveled along the Columbia River to the Pacific Ocean. At last the route that offered the nearest approach to the long-sought "northwest passage" had been found. The return trip was begun in March, 1806, and the explorers reached the village of St. Louis in November of that year where they received a hearty welcome. Thousands of miles of wilderness inhabited by Indians and wild animals had been traversed; a mass of exceedingly valuable information concerning the geography, climate, natural products, and animal life of the region had been obtained; many councils had been held with the Indians; and an impulse to the westward extension of American trade, commerce and settlement had been made.



Other expeditions were undertaken in parts of the vast region beyond the Mississippi. William Dunbar and Dr. George Hunter explored the lower Red River and Thomas Freeman ascended that river for about 600 miles. Most notable among the explorations of this period were those of Lieutenant Zebulon M. Pike, who left in August, 1805, with twenty soldiers on a seventy-foot keelboat to explore the sources of the Mississippi, to assert the authority of the United States against the British in that region, and to find suitable sites for military posts. His achievement led to his appointment to lead a southwestern expedition. In the summer of 1806 he ascended the Missouri and the Osage rivers into the present state of Kansas, thence southward to the region of Colorado, where he discovered the peak that now bears his name. While searching for the Red River, he and his band were captured by a company of Spanish soldiers at a small tributary of the Rio Grande. They were held prisoners for a time at Santa Fé — northern outpost of the Spanish colonies and as old as Jamestown — and were finally taken to the frontier and released. Traveling home across northern Texas, they obtained much information about that region.

Most of the early explorers published the results of their expeditions, stimulating the interest of readers in the older sections of the country, and furnishing useful information for the adventurer, trader, merchant and settler, seized with the urge to go west. Patrick Gass, a member of the Lewis and Clark expedition, kept a journal which was published in 1811, and three years later Nicholas Biddle edited the journals of the members of the party, which became the most popular of all the accounts of the expedition. Even earlier, Pike had published his narrative of human daring and courage, affording his countrymen the first description of the southwest, stimulating interest in old Santa Fé, and laying the groundwork for the myth of the Great American Desert.

Other explorations followed these famous ones. John Shaw, John Bradbury, Henry M. Brackenridge, Henry R. Schoolcraft and Thomas Nuttall conducted private expeditions. The explorations of Stephen H. Long, beginning in 1819, directed by the War Department, led to information regarding the Platte, Red and upper Arkansas rivers. General Henry Atkinson explored the Arkansas region. Fur traders, like Jedidiah Smith, explored the Rocky Mountain region and beyond, to the Pacific coast. The growth of interest in the Oregon country by the early 1840's led the government to select the famous pathfinder, John C. Frémont, to lead many expeditions in the far West. By this time much information, real and fanciful, had been disseminated all over the East about the distant western regions.

The Western Fur Trade

Fur traders and trappers played a most important part in western exploration. They were the advance guard of civilization, always keeping far ahead of settlement where game was plentiful. During the colonial period the American fur trade was in the hands of private individuals or groups. Great Britain chartered but one great company in that period — the Hudson's Bay Company in 1670, whose activities were confined to the northlands. After the fall of New France, British merchants, and many Scotch, gradually took over the system built up by the French in Canada and the region of the Great Lakes, but the system of government monopoly, characteristic of the French, entirely disappeared. Monopoly in the fur trade continued as a few great British companies dominated the trade. The North West Company, chief of these, was not an incorporated company, but was similar to a modern holding company, the parts of which were chiefly Montreal firms and partnerships engaged in the fur trade. Another was the Mackinac Company, with headquarters at Montreal and with activities extending throughout the regions of Wisconsin and Minnesota.

At the outset of the American Revolution, the First Continental Congress appointed a committee to devise a factory or government trading system, but it was not until 1795 that the United States inaugurated a plan of government-owned and operated trading posts. They were established at Detroit, Chicago, Fort Wayne, Green Bay, Sandusky, Chickasaw Bluffs, and elsewhere. The purposes of the system were to promote peace among the Indians, to protect them from exploitation by private traders, to offset the influence of the British and Spanish on the Indians, and to strengthen military policy. The government agents at the factories sold all kinds of goods to the Indians in return for furs, skins, animal oils, beeswax, and other products, which were sent eastward to the superintendent of Indian trade for sale at auction or in foreign markets. Many problems arose as private traders, companies, Indian agents, and designing Indians opposed government control. John Jacob Astor with the aid of lawmakers like Lewis Cass and Thomas Hart Benton waged campaigns against the system. It never was a great success and Congress abolished it in 1822.

By this time the fur trade was largely in the hands of a number of companies. John Jacob Astor's American Fur Company was chartered by New York in 1808. The next year, the St. Louis Missouri Fur Company, a co-partnership, was organized to conduct hunting and trading expeditions on the upper Missouri River; the company was dissolved in 1814. In that year, the Missouri Fur Company, also a partnership, was formed and remained in business until about 1830. The Columbia Fur Company was founded in 1822 to do business in Sioux and Omaha country. Other companies were organized.

The American Fur Company became the greatest of all the fur trading companies. It was established by John Jacob Astor, who arrived in New York in 1784, a poor immigrant German lad, and immediately became a trader in furs. By 1808, when he organized the American Fur Company, he was a rival of the older British companies in Canada and envisioned control of the entire American fur trade as he planned a series of posts from St. Louis to the Columbia River, as well as a large share of the China trade from the Pacific Northwest. By 1811 he had established Astoria in the Oregon country, seized by the British during the War of 1812, but returned after the war. He gave up his project beyond the Rockies and concentrated on the region to the east of those mountains. By 1830, the American Fur Company had a virtual monopoly of the fur trade of the United States. This had been accomplished in devious ways. Rival companies were fought, suppressed, and absorbed, by fair means and foul; private traders were forced out of business by ruthless competition; agents of the company were not averse to violence in competing for the wealth of new areas; and Congress was influenced to pass laws excluding foreigners from the trade and also to end the government factory system. As the activities of the company reached its peak in 1834 Astor sold his interests. A visit to London convinced him that silk and other fabrics were displacing beaver in the manufacture of hats and at the same time it became evident that fabulous profits could no longer be made, for in many areas the fur-bearing animals were getting scarce. The fur trade had reached its height and was on the verge of a downward trend. Astor then turned his attention largely to real estate in and near the rapidly developing city of New York. He died in 1848, worth probably about $30,000,000, one of the first great American fortunes.

The fur trade of the West was an important factor in the growth of St. Louis. This settlement was first laid out in 1764, as headquarters of Maxent, Laclede et Cie, fur dealers of New Orleans, and named in honor of the French monarch, Louis XV, although at this time France had given up to Spain all claim to Louisiana. From the beginning St. Louis was a center of trade and supplies and, as the country to the west and south was settled, it increased in importance. After American control in 1804, it grew rapidly. As the western fur trade expanded during the first decades of the nineteenth century, St. Louis, situated midway between the fur regions of the West and the markets of the East, increased in size. Its wharves were continually extended as trade increased; and its merchants equipped traders and trappers as they prepared to go into the western wilds. The advent of the steamboat contributed to its increase of population and wealth, as it did to most of the Mississippi towns.

Settlement of the Mississippi Regions

Before the Louisiana purchase, many American merchants in the East had agents and factors in New Orleans, the center of French and Spanish settlement at the mouth of the Mississippi. In 1803, with a population of 8,000, New Orleans was similar in many respects to European towns and had a very cosmopolitan population. Under American control, increasing numbers of settlers and traders moved there from the United States and from Europe. Prior to the Civil War it was the second port of the United States and the great commercial and financial emporium of the Mississippi Valley. By the beginning of the nineteenth century, American planters, moving from the older states with their slaves to the region surrounding New Orleans, crossed the river to the west side and joined French and Spanish plantation owners in developing rich sugar, cotton, and fruit lands. This nucleus of settlement expanded rapidly so that by 1810, the territory of Orleans, as this part of the Louisiana purchase was named, had a population of more than 76,000. Two years later, in accord with the promise made in the treaty of 1803, this region with its French and Spanish as well as American peoples, became a state, although strong protests were made by New Englanders, who feared the increasing ascendency of the South and the growth of western power.

Also on the western side of the Mississippi, centering in the growing village of St. Louis, easy-going Frenchmen and more energetic Americans established plantations during the latter part of the eighteenth century. After the turn of the century, fur traders, slaveholders, farmers, lead miners, and businessmen moved into this region, largely from the Old South. By 1818, more than 60,000 lived in the area. Application for statehood brought out the serious controversy over slavery there and a sectional struggle for the control of the region beyond the Mississippi was begun. The Compromise, admitting Missouri as a slave state, Maine as a free state, and the prohibition of slavery north of the 36° 30′ parallel in all the territory of the Louisiana purchase, except Missouri, settled the question for the time being, but marked the beginning of a struggle between the North and South, which was to end in a tragic, bloody civil war. With keen insight, John Quincy Adams wrote in his diary of the Missouri Compromise: "I take it for granted that the present question is a mere preamble — a title-page to a great tragic volume."

Before Missouri was granted statehood, American settlers were moving into the region of Arkansas. This part of the Mississippi area had been neglected by settlers because of the vast swamps along the western banks of the river. In 1810, about 1,000 people lived there; by 1820, population had increased to 14,000. In the years that followed, slaveholders in increasing numbers from the Old South took up lands in the rich regions of the White, Washita, Arkansas and Red

Rivers, cultivating cotton, tobacco and corn. The planter classes dominated the entire economic life of the area and were able to rush the territory into statehood (1836) ahead of time as measured by population, partly in order to establish state banks as the life of the Second United States Bank ended, and also to get other benefits conferred by statehood.

The surge of population was also affecting the upper Mississippi Valley. As Wisconsin was being settled, it was natural that pioneers should push across the Mississippi into the region of Iowa and Minnesota. The Black Hawk War of 1832 resulted in the first Indian cession of Iowa land and in the years that followed, the Indians gave up their lands for less than ten cents an acre. Frontiersmen, land speculators, and miners moved into the eastern region and then settlement pushed westward. European immigrants were among them. Farmers grew corn, wheat, oats, rye, and vegetables. Towns were quickly established. Many were attracted to Dubuque by lead-mining. Burlington, Davenport and other river towns began to thrive. When Iowa was admitted to statehood in 1846, Iowa City, 100 miles west of the Mississippi, had been established.

Further north, Minnesota — a Sioux name, meaning sky-tinted water — received its first real settlement in the region of St. Paul, after Indian treaties had been made and hardy lumbermen, hopeful farmers and town-builders began to arrive in the years just prior to the mid-century. After 1851, the year that treaties were made with the Sioux Indians, southeastern Minnesota was rapidly settled. Many Germans, Scandinavians, Irish, and English joined the native American pioneers. The migratory movement at first was largely by way of the Mississippi. The building of the Chicago and Rock Island Railroad in 1854 aided settlement in Minnesota as it made the journey easier and less expensive. Population jumped from 6,000 in 1850 to 157,000 in 1857, when application was made for statehood. The Kansas question delayed admission, but the next year Minnesota took its place among the states. Immigration continued, most settlers coming from the middle states, especially New York, although New Englanders, many from the older central western areas, and newly-arrived immigrants from Europe swelled the stream of settlers.

Kansas and Nebraska

In the 1850's Kansas and Nebraska were also opened up for settlement. Land-hungry settlers, profit-seeking land speculators, northern capitalists anxious to build a transcontinental railroad from the Mississippi Valley to the Pacific, and southerners seeking more slave territory, were all partly responsible for the law which opened up this vast area that earlier had been dedicated to the Indians forever. The Kansas-Nebraska Act of 1854 also put an end to the Missouri Compromise line; it brought the struggle between the North and the South over the expansion of slavery to a white-heat; it led to a general realignment in American politics; and it swept the country nearer to the Civil War. The struggle for Kansas resulted in a bloody war on its broad plains as settlers from the North and South sought control. As the preponderance of northerners in Kansas increased, their control of the region was assured, thereby substantiating the contention of Stephen A. Douglas, who had written the doctrine of "popular sovereignty" into the Kansas-Nebraska Act, that free states actually became such by self-determination rather than by federal law. But it took several years to settle the issue and it cost 200 lives and $2,000,000 in property that was destroyed in the new settlements. In January, 1861, after the first southern states had seceded, Kansas became a state. The settlement of Nebraska was more peaceful and this region of the Platte watershed was sufficiently populated by the close of the Civil War to consider statehood which came in 1867.

Earliest American Settlement in the Far West

Increased interest in the far West developed with the early migration of Americans to Oregon and California in the 1830's. Following on the heels of fur traders, missionaries led the way to Oregon. Missions for the Indians were opened in 1834 when Jason Lee established the Oregon Mission of the Methodist Church in the Willamette Valley. Two years later, the American Board Mission, a Congregational missionary organization, sent Marcus Whitman, a doctor, and the Reverend Henry H. Spalding, a Presbyterian minister, to Oregon. The missionaries attracted pioneers who traveled in their covered wagons by way of the deeply-rutted Oregon trail. As long as the country was held jointly by Great Britain and the United States no legal title to land was possible, and the settlers held their lands simply by "squatters rights." Far away from American civilization, they established their own provisional government. The settlement of the Oregon boundary dispute (p. 190) encouraged increased migration and, in 1859, Oregon became a state.

In the meantime a most interesting experiment was being carried out in Salt Lake Valley by the Mormons. The Church of Jesus Christ of Latter-Day Saints, or the Mormon Church, was founded by Joseph Smith in the state of New York in 1827. In many respects the organization was similar to the many new sects of that period, but was subject to more persecution than most. Forced to move from place to place, the Mormons finally settled at Nauvoo, Illinois, in 1840. Here Smith claimed to have received a revelation on "celestial and plural marriage." The practice of polygamy among the leaders, alleged political intrigues, and the belief that criminals were being harbored by them brought strong anti-Mormon sentiment and opposition. Smith and his brother were murdered by a mob and the group decided to move under the new leadership of Brigham Young.

Leaving Nauvoo in 1846, about 12,000 Mormons moved westward. They migrated with their wagons, cattle, sheep, hogs, poultry, tools, and furniture to Council Bluffs, Iowa, and then proceeded in several divisions to Great Salt Lake which Young referred to as "This is the place." The first division arrived in 1847. Here they encountered difficulties of all sorts as they sought to build homes in an alkali desert infested with rattlesnakes, lizards and crickets. Their first crops were mostly destroyed by locusts and during the first winter many had to depend on roots and broth made from buffalo hides for food as flour was closely rationed among the group. Success, however, finally came under the wise leadership of Young. Through irrigation the Mormons soon transformed the desert into a fertile region. Plans were worked out by which all had to cooperate and industries of different sorts were encouraged. Many persons converted to Mormonism in Europe had joined the colony in its earlier locations. Now thousands arrived at the new Zion in the wilderness, encouraged by Mormon missionaries in the Old World. The first two years were critical, but the Mormons were soon aided by supplying the gold seekers on their way to California. Fresh horses, mules, and supplies were sold to those who went to the diggings by way of Great Salt Lake, and profits were high. In 1849, a constitution was adopted for the "State of Deseret," but Congress refused admission of the new state and organized the territory of Utah, a part of the Compromise of 1850. The practice of plural marriages prevented statehood until 1896. Laws passed in the meantime to suppress polygamy could not be enforced, but in 1890 the Mormon church at last declared that it no longer countenanced the practice.

California was also settled by Americans about this time. Early in the nineteenth century, the few Americans in Spanish California were deserters from New England trading ships calling along the coast, factors representing eastern shipping interests, and itinerant fur traders. Beginning in 1840 small groups on the westward moving frontier, especially in Missouri and Arkansas, began to make plans to cross the plains and mountains to the Pacific coast. During the next few years several expeditions crossed the Rockies bound for California, including the ill-fated Donner party of 1846. Soldiers and sailors went there during the Mexican war and many remained. The treaty of Guadalupe Hidalgo made California American territory. Before the treaty was signed gold was discovered at Sutter's Fort (Sacramento), in January, 1848. Captain John August Sutter, of German origin, a picturesque soldier of fortune, had received from the Mexican government an extensive grant of land and had erected his thick-walled fort seven years before, equipping it with guns taken from Fort Ross when it was abandoned by the Russians. Sutter possessed herds of cows, many oxen, and flocks of sheep. He lived in baronial style. He entertained army officers and early California pioneers. Following the discovery of gold, hordes of squatters dispossessed him and most of the equipment of his fort was carried away. The lust for gold had ruined his New Helvetia, as he called his domain.

As gold was discovered in scattered places along the Sacramento and San Joaquin rivers and in the streams and creeks of that region, miners with picks, shovels and tin pans feverishly sought the coveted metal. Thousands crossed the prairies from the East. Most of the early groups and companies organized for the westward trek at Fort Smith, Arkansas. During the years of the gold rush many thrilling and tragic stories were enacted on the way to the land of opportunity. Terrible desert heat, choking prairie dust; violent rains; tragic accidents; Indian attacks; hasty funerals and unmarked graves; fighting among the emigrants; abandoned property along the way; and singing and crude amusements at night around camp fires must be woven into the story of the overland trail to California. Farmers and businessmen from Oregon flocked southward and the Oregon migration was deflected to California.

A second route from the East to California, preferred by those who did not wish to face the dangers and terrors of the overland trip and had the money to pay their passage, was the long sea voyage around Cape Horn in clippers or in slower ships. Other routes were those by vessel to Panama, across the deadly isthmus by foot or on horseback, later by railroad, and then by ship to California, or by way of the isthmus of Nicaragua. Gold was the magnet which attracted large numbers to the Pacific coast. Within a year or so, population was so large that California soon became a state — a part of the Compromise of 1850.

CHAPTER IX

Transportation and Communication

Turnpikes and Improved Highways

The earliest settlers of the colonial period traveled from place to place along the Atlantic seaboard over age-old Indian trails. These led beside streams, wound among rocks, ran by the easiest grades over hills, and followed animal tracks through the woods and forests. They were rough and narrow, but useful as foot-trails and horse-trails. As they were cleared and widened, many of them became the basis for early colonial highways and roads between the settled regions.

The first local "ways" or streets, developed from paths through cleared fields, in time were legalized as rights of way from which fences and other obstructions were removed. The public road was the other type of thoroughfare and much colonial legislation was devoted to its building and upkeep. It became the custom in many colonies to require a certain number of days' work each year from all able-bodied male inhabitants to keep the roads in repair and to build new ones.

Before the end of the seventeenth century there were some fairly good cleared roads in the more settled communities and cobbled streets in the older towns. Outside the settled areas, rough highways linked the colonies, permitting horseback riders and heavily freighted wagons to pass over them without great difficulty. Compared with modern roads, these clay and dirt highways were crude indeed, dusty in summer and muddy in winter. During bad weather, mudholes, roots, rocks and fallen trees frequently interfered with traffic, overturning vehicles and breaking axles or wheels. Between 1700 and 1750, these roads were as good as most contemporary highways in England and France which were characterized by a writer of that period as notoriously "bad for the rider and good for the abider." But in the colonies more difficulties of travel were encountered because of a lack of bridges across rivers and streams. Rivers were often crossed by fording them or by ferries propelled by ropes or oars. In spite of hazards, intercolonial travel and freight traffic over these roads increased. For the convenience of those who used the highways of the country, Daniel Henchman and T. Hancock of Boston in 1732 issued a guidebook, *The Vade-Mecum for America: Or, a Companion for Traders and Travelers,* which included a description of the roads, inns, and taverns from Maine to Virginia as well as a directory of Boston streets. Among the most important roads of the colonial period were the "King's Highways" in many of the colonies, the early "Post Roads," and the two famous roads to the West, built during the exciting times of the French and Indian War — Braddock's Road and Forbes' Road.

By the middle of the eighteenth century, as settlement increased and inland trade began to spread, the important highways and post-roads of the country were improved by scraping, patching, and filling the holes with stone. Country roads multiplied, especially in the regions of the seaport cities, and the cobblestone and semi-paved roads of the larger towns served their purposes with increasing efficiency. Stagecoaches had appeared by the beginning of the eighteenth century, especially in New England, but it was not until near the middle of the century that regular stagecoach "lines" were operated chiefly between Boston and Providence, New York and Philadelphia, and Philadelphia and Baltimore. There was intermittent stagecoach service to the smaller towns as well.

On the highways, increasing numbers of various types of freight wagons were used. By 1750, Conestoga wagons were carrying goods in many regions throughout the colonies. This "vehicle of empire" originated in the Conestoga Valley, Pennsylvania, among the Pennsylvania Germans. Large and strongly built, with broad wheels, the body curved upward at each end, and covered with a coarse cloth stretched over hoops, the Conestoga wagon played an important part in economic development during the last decades of the colonial period. After the Revolution it became a general means of transportation on the overland routes across the Alleghenies to the western country and in time evolved into the prairie schooner that plied the regions of the Middle West and beyond.

Travel, however, was exceedingly slow, during the colonial period. For example, it took days to travel from Philadelphia to New York or from New York to Boston. Because of the hazards of travel, it became customary for businessmen and other travelers, before a trip was begun, to be sure that their wills were in good order, or to write one if none existed. Plans were made to speed up travel, especially by the postal service during the last decades of the colonial period. When, in 1771, the new stagecoach "Flying Machine" made the trip between Philadelphia and New York in the record time of one day and a half, the achievement was hailed as the beginning of a new era in transportation.

During the Revolution, some improvements were made in land transportation. Most important, especially from the viewpoint of western settlement, was the cutting of a wagon trail by Daniel Boone and his thirty woodsmen from Fort Watauga by way of the Cumberland Gap into the "dark and bloody" ground of Kentucky. In the years that followed, the Wilderness Road, as it became known, was used by thousands of settlers traveling westward. Some military trails and roads, dictated by necessity, were also made in this period. As the new nation arose after the Revolution, many stressed the importance of good roads as a means of binding the settlements together and as a necessity for national economic advancement. A few road companies received state charters for building and operating improved roads. However, it was the building of the Philadelphia-Lancaster turnpike that introduced the era of turnpike building and the improvement of roads.

In 1791, a number of prominent Philadelphians organized the Society for the Improvement of Inland Navigation to rival the Potomac Company (1785) under George Washington, which proposed to develop a system of transportation between the Potomac and the Ohio rivers. As a result of the labors of the Philadelphia group, the Philadelphia and Lancaster Turnpike Company was chartered by the state of Pennsylvania to build a sixty-six mile road connecting Lancaster with Philadelphia. It was completed during the years 1792–1794 at a cost of $465,000. At first, stones of all sizes were used in paving the road, but when it was found that "drivers kept biting their tongues and bobbing up and down like jumping jacks," stones that would pass through a two-inch ring were used and the entire road was overlaid with gravel. Travelers called it a masterpiece of engineering. The road was built on a plan similar to the roads of the Scotch engineer, MacAdam, and had excellent drainage. In the "macadamized" roads of that period a tar binder was not used; this method was a much later development. A number of tollgates were distributed along the course of the Lancaster turnpike and all vehicles using it were required to pay a fee at every gate. Almost immediately, as freight wagons, stagecoaches, and ordinary vehicles used the road, the company made excellent profits on its investment, and encouraged similar projects in other regions.

A mania for building turnpikes followed the opening of the Philadelphia and Lancaster turnpike. By 1811, New York had granted charters to 137 companies whose capital totaled $7,500,000. New

England states, by the same year, had chartered about 200 companies, having a capitalization of $5,000,000. By 1838, Pennsylvania had 2,500 miles of turnpikes, built at a cost of $37,000,000. In the southern and western states, also, many turnpike companies were granted charters, although throughout this period the development of the West was continually hampered by a lack of good roads. The increase in turnpikes required the building of a large number of bridges. Some of the new companies built their own, but separate companies were often organized to build and keep up bridges, from which they derived a revenue by charging tolls. Many ferry companies were also formed as the necessity for them increased.

About the middle of the nineteenth century plank roads were built. Between 1848–1850, twenty-four companies in Alabama alone were chartered for building such roads. Although most were built by private companies, some states undertook to build their own, collecting tolls as did the companies. The chief purpose of plank roads was to connect villages and towns with the nearest railroad centers, although in some regions, especially the South, they were designed to compete with the railroads. When in good repair, these roads, constructed of planks about ten feet long and three or four inches thick, were excellent, but when the planks were worn or warped, the roads were rough. They were always expensive to maintain. While a few plank roads persisted down to the beginning of the twentieth century, railroad development gradually crowded them out of existence. Another type of road, found especially in the rising West, was the corduroy road, so called because it was ribbed and rough. This road was built over low or boggy ground, especially where the ordinary filling of earth would not stand up. Logs were laid side by side and, above these, another layer was laid crosswise, the interstices usually filled with dirt and gravel. A few corduroy roads still exist in remote sections of the country bearing witness to a bygone age.

As turnpikes and new roads were built in the nineteenth century, many improvements took place in the mode of travel. Service grew more rapid and frequent, as additional routes were established. Rival transportation companies not only sought to outdo each other in speed, but also in accommodations. Stagecoaches were made larger and more comfortable. These reached their height in the Concord coach, with its brilliant decorations and silk upholstery, accommodating as many as nine passengers inside and one or two beside the driver on the very high seat outside. These famous American coaches were manufactured by Abbot, Downing and Company, of Concord, New Hampshire, who began business in 1813, and by 1860 had the largest factory of its kind in America, supplying Mexico, South America, Australia and other foreign countries, as well as all parts of the United States. There were also many similar, though smaller, factories in the United States.

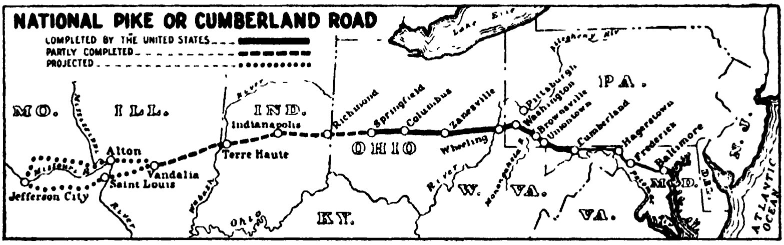
Many stagecoach lines became important, and to a certain extent monopolistic, because of their better service and greater comfort. Among the outstanding companies of the period were the National Road Stage, June Bug, Good Intent, Pioneer, and Stockton lines. On the most important highways, the larger companies ran both the rapid "limited" coaches carrying mail and a few passengers at high fares, and also "accommodation" coaches, which stopped more frequently and permitted stopovers at taverns for the night. Hostelries along the highways also offered improved accommodations as travel increased. Many landlords were partners in transportation companies or had an interest in them. By the middle of the century, stagecoach travel was declining in the older states of the East as the spreading network of railways connecting the towns and cities broadened and the meshes became more closely knit. In the West, however, the stagecoach served for many more decades, but the transcontinental railroads marked the beginning of the end of this mode of travel.

The Cumberland or National Road

As the turnpike movement got under way early in the nineteenth century, a demand developed for road improvements planned and financed by the federal government. However, the question of the constitutional right of Congress to appropriate money for such internal improvements prevented much help from the national government. But in addition to aiding the construction of some smaller roads, Congress did build one important road during this period, the Cumberland Road, often called the United States or National Road. At the beginning of the century, the deteriorating Braddock's Road, from the Potomac to the Monongahela, and the over-burdened Forbes' Road, from Philadelphia to Pittsburgh, were used by streams of emigrants on their westward trek. It was evident that better roads to the West were essential.

When Ohio was admitted as a state, it was agreed between the new state and the federal government that a small percentage of the proceeds from the sales of public lands within Ohio should be used for building a highway from the Atlantic to the state of Ohio. In 1806, Congress passed a law for the necessary appropriation and for the marking and construction of the road which was to begin at Cumberland, Maryland, since there were roads from the coast to that point.

It took some time to make surveys and secure rights of way. Pennsylvania was slow to grant permission chiefly because Philadelphians were afraid that Baltimore would get much of the western trade then passing through Philadelphia. The way was clear by 1811, and construction was begun. By the close of the War of 1812, only twenty miles had been completed. Then rapid progress was made; in 1818, the road was opened as far as Wheeling, Virginia. The route in most places followed many older trails and roads, including Braddock's Road. Congress voted funds for the continuance of the road through Ohio, Indiana and Illinois, but it was completed through the last two states after the federal government had relinquished its control. The last important federal appropriation for it was made in 1838, although a small sum to survey the road to Jefferson City, Missouri, was provided in 1844.



The federal government gave up its control of the road because of the constitutional argument in Congress. A few years after the road had been completed to Wheeling, Congress passed a bill for the establishment of tollhouses along the route to provide for the collection of revenue to keep the road in repair. President Monroe vetoed the measure (1822). Like his predecessors in office, he recommended an amendment to the Constitution granting Congress the power to build and maintain roads (p. 210).

But later, money was appropriated for repairs and even for extending the road. After it was turned over to the states through which it passed — Maryland, Pennsylvania, Virginia, and Ohio, tollhouses in some cases were erected by the states. The road from Cumberland to Vandalia, Illinois, a total length of 600 miles, was completed about the middle of the century. The federal government had appropriated altogether $7,000,000 for its building and for repairs.

The Cumberland Road for most of its length was from sixty-eight to eighty feet wide and was macadamized in the center to a width of thirty feet. Its foundation consisted of about a foot or more of crushed rock, with gravel laid on the surface. The center of the road was raised to bring it well above each side, where a shallow trench of large flat stones set on end provided drainage. Stone culverts and bridges carried the road across gullies, creeks and streams. Much of the work was done by Irish immigrants. The cost of building the road from Cumberland to Wheeling was about $13,000 a mile compared with $25,000 a mile for a concrete road today.

The importance of the Cumberland Road during the first half of the nineteenth century cannot be overestimated. It operated as a powerful factor in westward migration and in the establishment of new settlements, as well as aiding the growth of Wheeling and other towns. By the middle of the century no other post road did so much business. A constant procession of Conestoga wagons drawn by four, six or eight horses, carried large quantities of supplies westward and brought agricultural and other products to the Atlantic coast. As freight traffic increased, rates dropped. Travelers marvelled at the large number of four-horse stagecoaches that traveled over the road. The time of travel from Baltimore to Wheeling was reduced from eight to three days. As taverns along the road increased in number and improved in accommodations, many became the nucleus for villages and future towns. These taverns at night housed farmers, businessmen, travelers and wayfarers, and their adjoining yards and pens cared for horses, mules, cattle, hogs and sheep, which were on their way to western farms or to eastern markets. The road was a veritable stream of life. In addition to stimulating the economic development of the country, it contributed greatly to the growth of population in the West as the Monongahela gateway for a time became the most important of the westward routes.

Government Plans for Internal Improvements

During the first three decades of the nineteenth century, the insistent demand, especially from the West, that the federal government develop systems of roads and canals and appropriate large sums of money for all sorts of internal improvements, resulted in a continual controversy in Congress. The first comprehensive plans were projected during the presidency of Jefferson at the time of the beginnings of the Cumberland Road. The opposition, largely but not entirely from members of Congress from the Old South, prevented many programs from being projected and held back federal aid.

In 1806, Jefferson, apprehensive because a government surplus was increasing, suggested to Congress that money from the "overflowing treasury" could "be applied in time of peace to rivers, canals, roads, arts, manufactures, education, and other great objects within each state." He stressed, however, his belief that an amendment to the Constitution was necessary to authorize the expenditure of money for purposes which were not enumerated in the grant of powers. The recommendation was followed, not by an amendment but by a Senate resolution requesting Albert Gallatin, Secretary of the Treasury, to make a survey for the consideration of Congress. In 1808, Gallatin made his report in which he outlined a comprehensive system of canals and roads for construction by the federal government. His able program suggested a series of Atlantic coastal canals from Massachusetts to the Carolinas; roads and improved waterways between the eastern coast and the midwestern rivers, as well as communication with the St. Lawrence and the Great Lakes; and interior roads and canals. Although the plan was both highly praised and bitterly denounced, nothing was done to carry out the proposals; the embargo and the non-intercourse acts had cut down federal income and dissipated the surplus. Not until the close of the War of 1812 was the question of federal aid for internal improvements seriously considered again in Congress.

The War of 1812 demonstrated the need for better communications, especially in the West and the outlying regions of the North. In his first annual message after the war, Madison advocated the necessity for federal activity in this realm. He pointed out that the prosecution of the war was hampered by a lack of good roads and that the development of the West laid a new stress on communication and transportation as bonds of union. However, like Jefferson, he reminded Congress of the necessity for an amendment. Congress did not respond immediately, and Madison found it necessary to repeat his recommendation the next year. Late in December, 1816, John C. Calhoun, as chairman of a committee appointed for the purpose, introduced a bill to set apart as a permanent federal fund for internal improvements, the $1,500,000 bonus exacted from the newly chartered Second Bank of the United States as the price of its charter, together with all dividends and profits the United States would receive from the $7,000,000 of the bank's stock owned by the government. The bill became known as the "Bonus Bill." In the debates in Congress, those who favored the proposal argued that the clauses in the Constitution giving Congress the right to establish post roads, to support armies, and to regulate commerce, as well as the general welfare clause, justified such an act. While the strict constructionists objected strenuously, a majority vote was obtained in both houses. But Madison, familiar with the intentions of the framers of the Constitution, was not moved by the eloquent arguments of Calhoun and others, and vetoed the bill at the close of his administration, still insisting that an amendment to the Constitution was necessary.

James Monroe, who succeeded Madison to the presidency, was in harmony with the views of his two predecessors. In his first inaugural address he referred to roads and canals as among the most important considerations of the period, but warned Congress of his constitutional scruples. Although Henry Clay continually emphasized federal aid to roads and canals, and embodied it in his American System, which included protective tariff and internal improvements as well as free western lands to build up American enterprise, no amendment appeared. In 1818, at the request of the House, Calhoun, Secretary of War, submitted a report which outlined a system of internal improvements with national defense as the chief objective, but no attempt at legislation followed.

In 1822, the problem of the upkeep of the government-owned Cumberland Road was before Congress. A measure was passed for the collection of tolls to be used in the upkeep of the highway, but Monroe vetoed it on the grounds that the administration of it and the punishment of violators of the law by the federal government would be an infringement of the rights of states. Two years later, a General Survey Bill was enacted, authorizing the President to have army surveys made of routes for any roads and canals he deemed of national importance. Monroe believed that this measure was within the powers of the government and signed it. In the case of all bills relating to general plans of internal improvements passed by Congress during this period, the opposition came chiefly from the Old South and also from New England which feared that the growing West would depopulate the older region and that it would lose its political, social and economic power and dominance.

During the administration of John Quincy Adams many small subsidies and even land donations were made for internal improvements, chiefly for improved waterways, some of them in the South. Increasing appropriations were made for rivers and harbors and the "pork barrel" laws of later days began to appear in shadowy outline. In the long struggle over internal improvements, the Maysville Road veto was an important episode. In 1830, Congress passed "A Bill Authorizing a subscription of stock in the Maysville, Washington, Paris and Lexington Turnpike Company." Andrew Jackson, although an ardent nationalist, vetoed the measure largely because of political and personal prejudices, especially against Henry Clay and others. Jackson stated that the project lay entirely within one state and that only works of national and general importance should receive federal aid. The difference between a local and a national road, however, was not made clear. In spite of the veto, appropriations by Congress for canals, roads, rivers, and harbors continued at about the same rate as during the administration of John Quincy Adams. More liberal land donations had been made under Adams, but relatively lavish appropriations were made for improvements during the eight years that Jackson lived in the White House. But the controversy that had been waged for a generation prevented the development of a complete governmental system like that suggested by Gallatin and was responsible for the failure of a definite policy as planned by Calhoun. While the Cumberland Road was largely built by the federal government, it was decided during the administration of Jackson to turn it over to the states through which it ran. After the Panic of 1837 which forced the suspension or conclusion of many state systems of internal improvements, as well as many private enterprises, there developed opposition to government ownership and administration of any sort in this field, and many state projects were sold to private groups. In the years prior to the Civil War private capital was forced to take the initiative in transportation improvements with little governmental aid.

The Rise of Canals

During the latter part of the colonial period, an interest developed in canal planning, stimulated by a new era of canal building in England about the same time. Suggestions were made in the 1760's by the American Philosophical Society for building canals to connect important waterways, especially in the regions of Pennsylvania, Delaware and Maryland. Plans were also discussed in different parts of the country for canals around the falls of rivers flowing into the Atlantic, for the falls rendered the Piedmont region less accessible to sea-going commerce than the tidewater area. About the same time, the need of a direct waterway connecting Cape Cod Bay with Buzzards Bay was recognized and a survey was made, although more than a century elapsed before work was actually begun on this project. After the Revolution many small canals were projected and completed before the end of the century. Among these were the canal around the falls of the Connecticut River near present Holyoke; the canal from Richmond to Westham around the falls of the James River; the Dismal Swamp Canal, and many others. Most of these projects were local in character.

As the canal era got under way, the great Erie Canal was projected. In the last two decades of the eighteenth century Elkanah Watson had stressed the possibilities of a canal from the Hudson River through the

Mohawk Valley to the Great Lakes. Others shared his vision of such a great waterway. Among these was De Witt Clinton who pointed out that the project would benefit the state of New York and also the expanding country as a whole. In spite of doubts and jealousies of skeptics and political antagonists, taxpayers and certain vested interests, Clinton led the movement for the canal. In 1812, with Gouverneur Morris he traveled to Washington to solicit federal aid, but without success, for war with England had begun and Clinton was a candidate for the presidency in the bitter conflict with James Madison. Not until 1817 did the New York legislature finally authorize raising about $7,000,000 on the credit of the state for the canal and also for a Hudson-to-Lake Champlain subsidiary. The funds for the indebtedness and interest charges were obtained from legislative appropriations, private donations, lotteries, and taxes on auction sales, salt, and certain Hudson River steamboat fares. After the canal was completed, tolls were collected and applied to the indebtedness. Ten years of tolls paid its cost and for a long period of time the state of New York enjoyed a large income from the profits of the canal.

The work of digging the Erie Canal was accomplished in a period when there were no giant steam or electric shovels to assist in the task. Without the use of modern machinery the work was done largely by hand labor and was a most remarkable engineering feat. In that period, engineers like Benjamin Wright, James Geddes, and Canvass White overcame tremendous obstacles and completed a canal 363 miles long, over a land rise of 500 feet, accomplished through eighty-three locks. The route of the canal lay through swamp lands, known as Montezuma Swamp. The difficulty of digging the canal through the bog was accomplished by doing the work in winter when it was frozen solid. In many places, the canal had to be cut through dense forests. The resourceful engineers designed a special plow with a sharp edge to cut through the spreading and tangled roots of the forest trees. They devised special machines of drums and cables to pull down trees and uproot stumps. But only human and horse power were used to remove the soil and only black powder was used for blasting rock which had to be drilled with hand drills. The quicklime mortar for the masonry of the locks gave way to a new "hydraulic cement," and for this purpose suitable "cement rocks" were discovered by White at Fayetteville, New York. After many experiments, he obtained a patent for making cement and has been called the father of the cement industry in America.

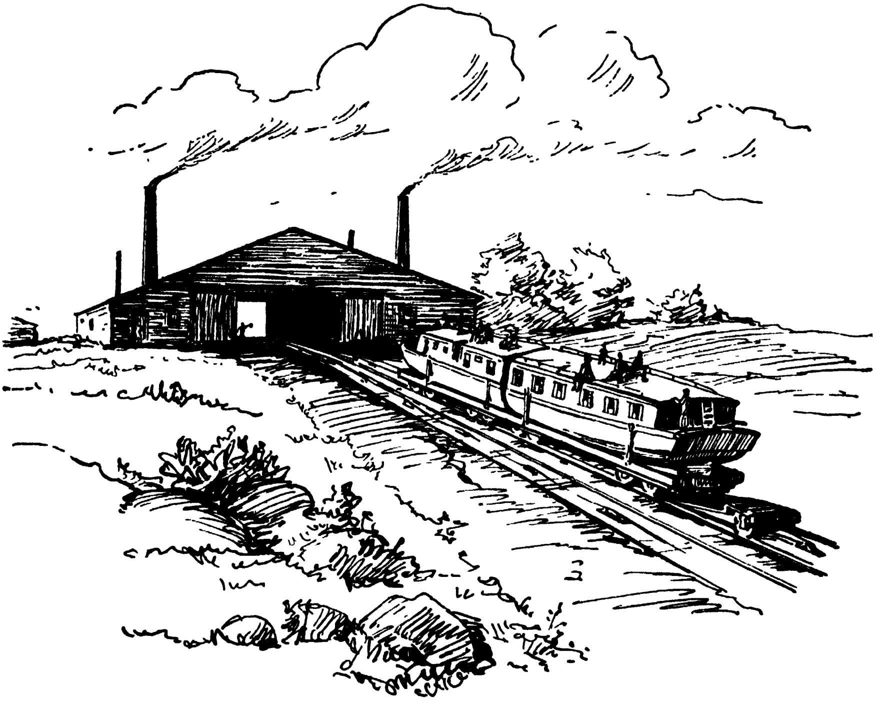
While the first section of the canal between Rome and Utica was finished and used in 1819 and more sections followed, the entire canal was opened with appropriate ceremonies in 1825. Governor Clinton, the canal commissioners, and other officials, after much speechmaking in Buffalo, left on the *Seneca Chief* and a number of other gaily bedecked and garlanded canal boats for the Hudson River. Two kegs of Lake Erie water were taken along to be poured into the Atlantic at New York. Symbols of the West, including two Indian boys, two eagles, two fauns, and a bear were also on the boats. As the parade of boats started, cannon, which had been placed along the route, were fired in rapid succession until the sounds reached New York. The boats were drawn slowly between the banks, thronged at many places with spectators. A few days later they arrived in the Hudson and were towed by steamboat to Sandy Hook where the kegs containing the water from Lake Erie were emptied into the Atlantic together with small quantities of water from the Mississippi, Columbia, Thames, Seine, Rhine, Danube, Amazon, La Plata, Orinoco, Ganges, Indus, Gambia, and Nile. Dinners, parties, and balls followed and souvenir medals were made for the gala occasions. The building of the canal had stirred the imagination of Americans, and the ceremonies and celebrations were worthy of the great achievement of "Clinton's Ditch."

The economic effects of the canal in the years that followed were far reaching. The route lay chiefly through an uninhabited wilderness and the canal therefore speeded up the settlement of an immense territory. While many new settlements were established, the canal also contributed largely to the growth of New York, Buffalo, and intermediate places, as well as to the future great centers of Cleveland, Detroit, and Chicago. By 1850, New York had outstripped Philadelphia, Boston, and Baltimore in population and wealth and had become the leading metropolis of the United States. The canal became the great artery of passenger and freight traffic between the northeastern section of the United States and the newly-settled states and territories of the West. The time required for freight shipments from Buffalo to New York was cut down from twenty to six days and the costs from $100 to $10 a ton. The lower rates of transportation likewise reduced the cost of eastern manufactures to westerners. But many a New England farmer, adversely affected by competition with western farmers, left his unfertile and stony farm for the new mill town of his own region, or joined the ever-increasing tide of pioneers moving westward. Europe also felt the effects of the Erie Canal, for American grain from the West could be obtained more cheaply and easily. In England, the Anti-Corn-Law League, a well-financed association which revolutionized England's fiscal system, argued that a British market for American wheat would encourage agriculture in the United States and prevent the growth of manufactures there, thus decreasing competition with British industry.

Even before the Erie Canal was completed, many other regions became apprehensive over its effects on their western trade. In 1825, the Massachusetts legislature created a commission to consider the question of a canal from Boston to the Connecticut River and thence to the Hudson near its junction with the Erie Canal. However, the topography of the region made the project impossible. Most seriously affected by the Erie Canal were Pennsylvania and Maryland. Pennsylvania's reply to the Erie Canal was the "Pennsylvania Public Works" system, a state-supported project, chartered in 1826, on which the first freight reached Pittsburgh from Philadelphia in 1834. The system consisted of a railroad from Philadelphia to Columbia, then canals along the Susquehanna and Juniata rivers to Hollidaysburg, whence the Portage Railroad carried the line over the mountains to Johnstown, and from there a canal continued to Pittsburgh. Several subsidiary canals were also built. There were forty aqueducts, 111 locks and two tunnels in the system, which by 1840 included 606 miles of canal and 118 miles of railroad. The system by this time had cost the state $32,000,000, although the original estimate had been $5,000,000. The tolls did not pay the expenses and interest, but the system enabled this region to retain a large share of the western trade, which otherwise would have gone to New York. In 1846 the Pennsylvania Railroad was chartered to build a line paralleling the main canals from Philadelphia to Pittsburgh, the state imposing a tonnage tax on the railroad to protect its own transportation system. Owing to continued losses, the state sold its main system to the Pennsylvania Railroad, which shut down the Portage Railroad and, during the Civil War, abandoned the canal from Johnstown to Pittsburgh. The eastern section was turned over to a subsidiary corporation, the Pennsylvania Canal Company.

Maryland and Virginia's answer to the Erie Canal was an all-water route from the Chesapeake Bay to the Ohio — the Chesapeake and Ohio Canal. The project was the legal successor of Washington's Potomac Company and was begun jointly by the United States, Maryland and Virginia. It was planned to construct locks and canals around the rapids and falls of the Potomac from Georgetown to Cumberland, thence across the mountains to the Youghiogheny River, a tributary of the Monongahela. Work was begun in 1828, but the canal did not reach Cumberland until 1850. The plan failed because of the great cost and the engineering problems of such a task, and especially because of competition from the Baltimore and Ohio Railroad, which reached Wheeling in 1852. The section of the canal that was completed has continued down to the present as a local enterprise along the Potomac River.

The decades of the 1820's and 1830's saw a tremendous amount of canal building all over the country, but by far most of it in the North and West. Not only did private, chartered companies build canals, but states also engaged in systems of internal improvements. By 1840, altogether more than $200,000,000 had been invested in canals and improved waterways, a tremendous debt for a country that was relatively sparsely settled. The money came from careful investors, wildcat bankers, speculators, and foreign investors. Baring Brothers and Company, of England, and Hope and Company, of Amsterdam, led European financial houses in selling the bonds abroad. But excessive loans were made for waterways which could never be financially successful, for unlike the Erie, many were not profitable. Speculation and overexpansion in internal improvements led to disaster and were factors that helped to produce the financial panic of 1837. A number of states, including Indiana, Maryland, Pennsylvania and Illinois, de-



SECTIONAL CANAL BOAT BEING HAULED OVER THE INCLINED PLANES OF THE PORTAGE RAILROAD IN 1840 faulted on their canal debts during the years of depression and later.

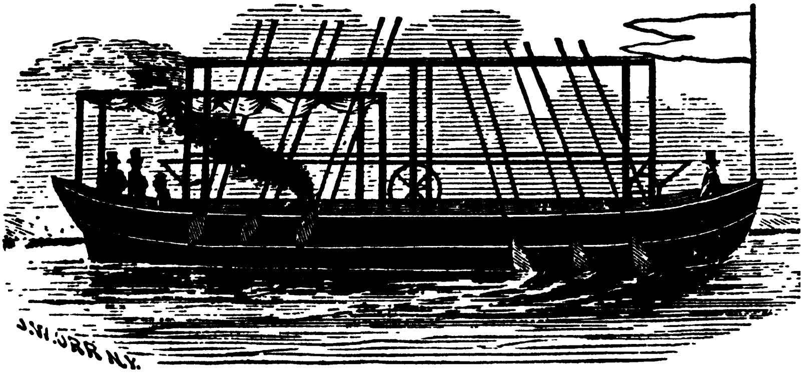
After the panic, canal building increased again, but more care was taken in projecting the plans and states adopted a more conservative policy regarding their systems of internal improvement. Many important canals were opened, the one that became the most famous being the St. Marys Falls Ship Canal. This artificial waterway on the St. Marys River was built in 1855 by the state of Michigan to connect Lake Superior with Lake Huron. It was improved by the United States in 1870–1871 and was entirely taken over by the federal government in 1880.

The Rise of the Steamboat

Experiments in using steam power to propel boats began during the latter part of the Revolution. In the years that followed, many inventors applied their ingenuity to the problem. Among these were John Fitch, James Rumsey, Oliver Evans, Henry Voight, Arthur Donaldson, and William Thornton. While many of them contributed to early steam navigation, it was John Fitch who made the most important advances.

In 1786, Fitch organized a joint-stock company in Philadelphia and had an engine built and installed on a small boat to drive twelve oar-like paddles, six on each side. The next year Fitch demonstrated his queer-looking "water beetle" to a group of skeptical members of the Constitutional Convention. A few of them were persuaded to take a ride in it on the Delaware, but the trip was not very successful, for the boat traveled at a speed of only two and a half miles an hour against the current and finally was grounded in the mud. However, during the summer of 1790, Fitch's new steamboat made daily trips between Philadelphia and Trenton, took excursion parties to Chester on Sundays, and made occasional evening trips up the Schuylkill. Engineering difficulties and failure to make any profits led to the withdrawal of Fitch's financial backers. A lack of capital prevented him from continuing his experiments and some years later he committed suicide, a disappointed man. Before he died, Fitch, a typical early inventor — original, sensitive, devoted, self-centered, unwise, self-sacrificing, and unfortunate — wrote in his autobiography that it would not be long before some one more fortunate than he would receive praise, honor, wealth and fame for perfecting a successful steamboat.

Others who experimented in this field met with even less success than Fitch. B. H. Latrobe, surveying the attempts to perfect the steamboat, wrote: "Nothing in the success of these experiments appeared to be sufficient compensation for the expense and the extreme inconvenience of the steam engine in the vessel." He pointed out that the chief objections included the weight of the engine and fuel, the large space occupied by both, the vibrations of the engine that often rocked the vessel, the irregularity of the boat's motion, the expense of steam power, and the difficulties connected with securing paddles of the right weight, for if too light they would break and if very strongly made they were too heavy. Fitch tried to overcome this last problem by his experiments with a screw propeller, which many years after his death finally came into use.



From Eighty Years Progress in the United States, 1861

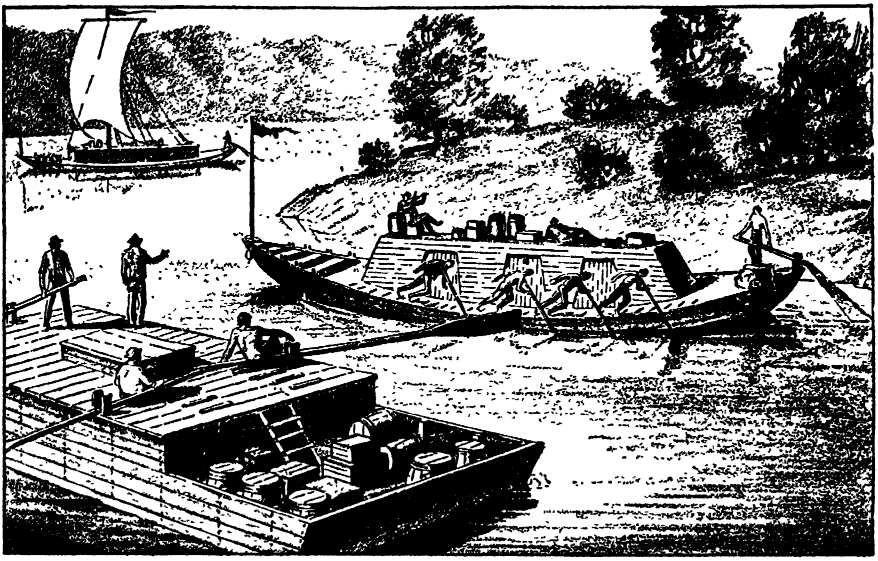
JOHN FITCH'S SECOND STEAMBOAT

More than a score of steamboats had been built and tried with ultimate failure before Robert Fulton successfully demonstrated his boat on the Hudson in 1807. Six years earlier he was in Paris trying to interest Napoleon in his invention of a submarine. In the French capital, he met Robert R. Livingston, the United States minister to France. The diplomat himself had earlier experimented with steamboats, and the two men decided that they would work together. Livingston financed a boat which Fulton built and tried on the Seine. It was not successful, but it led in time to the building of the *Clermont*. That vessel, 150 feet long, a 160-ton side-wheeler, made the 150 mile run from New York to Albany in thirty-two hours. Its engine had been built at the shops of Boulton and Watt in England, for the English government had relaxed its restrictions and permitted it to be shipped to America. As a result of the first successful trip of the *Clermont*, or "Fulton's Folly," as some mocking skeptics referred to it, a regular passenger service was inaugurated, other steamboats were built, and a new era in river transportation was begun.

In 1811, a year of comet and earthquake, the first steamboat on what used to be called the "western waters" descended the Ohio and Mississippi Rivers. Built at Pittsburgh by Nicholas Roosevelt under Fulton-Livingston patents, the *New Orleans,* a side-wheeler of 116 feet left Pittsburgh on October 20, 1811, and after safely navigating the falls of the Ohio and surviving the New Madrid earthquake, reached New Orleans on January 10, 1812. The vessel was put into service between New Orleans and Natchez. To the different kinds of river craft, including bull-boats, bateaux, canoes, dugouts, Mackinaw boats, flatboats, keelboats, rafts and barges, the steamboat was added. In time, the river steamboat became a most important means of moving the immigrant to new lands and his produce to market. It transported his manufactured goods and supplies, the lumber that built his home and the equipment used in the expanding railroads. It played a part in the building of the West and left its influence on the rising nation, for it affected even the manners and language of the people. The metaphors, "letting off steam" and "loaded to the guards," are reminiscent of the steamboat age when America was young and growing.

During the earliest years of steamboat development, however, progress was slow. Engineering problems had to be overcome, especially the building of engines powerful enough to gain more speed in moving the boat up-stream against strong currents. There were many tragic accidents as boilers exploded. Rivers had to be cleared of submerged rocks, shoals, snags, and fallen trees. But the monopolies granted by states to small groups were the chief obstacle to immediate steamboat expansion. As early as 1803, Fulton and Livingston, with Nicholas Roosevelt, received the exclusive right to navigate the waters of the state of New York. In 1811, the partners received a monopoly from Louisiana to navigate in the lower Mississippi. From the very beginning, others attempted to infringe on their monopolies and litigation followed. Other states also granted steamboat navigation rights to a limited few. The power of the monopolists was finally broken when the Supreme Court handed down its decision in the case of Gibbons *vs.* Ogden (1824). Fulton and Livingston had granted a license to Aaron Ogden to run a steam ferry between New York City and Elizabethtown, New Jersey. Thomas Gibbons operated boats over the same route, without any such franchise, although his boats were duly registered and licensed under the laws of the United States governing the coastal trade. Gibbons was enjoined by the state courts from continuing operations and carried his case to the Supreme Court. In a far-reaching decision, handed down by Chief Justice Marshall, the Court smashed state-chartered monopolies of steamboat traffic and emphasized the fact that the states could not pass such legislation even in the absence of congressional laws on the subject. The threatened return of strife among the states similar to that of Confederation days was ended and the way was open for any man or group of men to engage in steamboat traffic.

Removal of monopolies, decreased cost of transportation, reduced time of travel, advances in engineering, and the three million dollars spent by the federal government between 1822 and 1860 for improving traffic conditions on the Mississippi, Ohio, Missouri, and Arkansas rivers, were factors that aided steamboat development. By 1846, about 1,200 steamboats were plying western waters and more than 10,000,000 tons of freight valued at $432,621,240 were transported annually, about double the American foreign commerce for the same year. By the time of the Civil War, steamboats were navigating more than forty tributaries of the Mississippi system; Pittsburgh, Cincinnati and Louisville were the important Ohio ports, while New Orleans and St. Louis dominated the lower Mississippi. The gross tonnage of American steamboats in 1860 was 868,000 tons. By this time, captain-ownership of boats had been largely supplanted by large corporations such as those which owned or controlled the Cincinnati and Louisville Mail Line, the Anchor Line, the Union Packet Line, and others.



From The Keelboat Age on Western Waters *by Leland D. Baldwin. University of Pittsburgh Press.*

A FLATBOAT AND KEELBOATS ON WESTERN WATERS

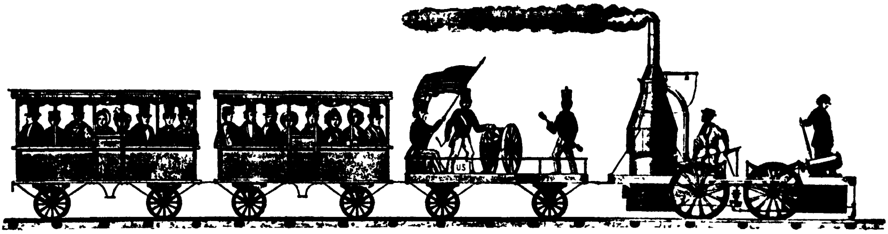
The Rise of Railroads

During the last two decades of the eighteenth century, many Americans were experimenting with "steam carriages" or "steam wagons," the progenitors of the modern locomotive. Inventors, attempting to use steam to propel boats (p. 216), also tried to apply it to land transportation. In 1786, Oliver Evans of Philadelphia asked the legislature of Pennsylvania for a monopoly of using "steam wagons" on the highways of that state, but was refused. He received patents in several states which granted him the right to operate his "Columbian," a steam vehicle. In 1804, he produced his strange "Orukter Amphibolos," designed to travel on land and water, and in the years that followed he made many contributions to engineering in the construction of new "Columbian" engines. Among other pioneers in this field was John Stevens of Hoboken, New Jersey, who built the *Phoenix,* a steamboat. In 1811, several years before Stephenson tested his first locomotive in England, he suggested the practicability of a railway with steam engines and cars having flanged wheels, and in 1815, he obtained a charter for a railroad. Five years later, after much experimentation, although handicapped by a lack of capital, he demonstrated on his Hoboken farm the first narrow gage steam railway in America. This stimulated many other inventors, who by this time were convinced that rails would be necessary for steam trains.

Primitive wooden rails were used in the United States as early as 1795 at a Boston brick works and in the years that followed many other tramways were built, operated by gravity, horsepower, mulepower, or cable. They were generally used to haul heavy materials in and from quarries and mines. In 1826, the state of Pennsylvania, in the interest of its own system of transportation, sent William Strickland to England to study railroad development there. On his return he published a book, stressing British success with railroads and advocating them. This influenced the chartering of the Baltimore and Ohio Railroad and the South Carolina Canal and Railroad Company (Charleston and Hamburg Railroad) in 1827. Both at first used cars drawn by horses and also experimented with treadmills set in the middle of flat cars with seats for passengers or space for freight on each side, the horses treading the mills to make the car wheels go round. Both companies also tried to drive cars by the use of sails. In the meantime several small railroads attempted to use locomotives, notably the Delaware and Hudson Canal Company, which imported two English engines in 1829, one of them the *Stourbridge Lion.* However, the engines proved to be too heavy for the rails and trestles and were abandoned. It was in this year that George Stephenson and his son Robert demonstrated successfully their *Rocket* in England. In 1830, steam engines made in New York were installed on the Baltimore and Ohio Railroad and the Charleston and Hamburg, although many English-built engines were also used on early American railroads.

In the early 1830's short lines sprang up with surprising rapidity in different places along the eastern seaboard. In spite of opposition from various groups, of prejudice, and of engineering problems, rapid progress was made. By 1840, dozens of railroads had been chartered by the states and the railroad mileage of the country totaled 2,818 miles. By 1850, the railroad mileage had reached 9,021, and, by 1860, a railway web of pronounced pattern could be traced from the eastern seaboard to the Mississippi Valley, and even in the South the skeleton of its system had been planned. During the two decades before the Civil War, the railroads competed with canals and emerged victorious, for from 1840 to 1860 railroad mileage grew from 2,818 to 30,600, while canal mileage increased only from 3,300 to 3,700. During this time the superiority of the railroad over the canal became evident. Canals frequently lacked water in periods of drought; at times they broke their banks; often they froze during severe winter weather; and travel on them was always slow. But the railroads had to pass through a painful period before they emerged victorious.

The "Best Friend," the First Locomotive built in the United States for actual service on a Railroad.



The railroads which spread their parallel rails from town to town, adversely affected turnpike and road companies, stagecoach and stage wagon interests. But as progress was made, the railroads provided a quicker, cheaper and better form of transportation. Produce and merchandise were sent by railway freight cars and travelers took the railway passenger cars instead of the stagecoach. Toll receipts fell off and many pikes and roads became public roads. The stagecoach and stage wagon disappeared in the East, but moved westward to regions that were more sparsely settled.

During their early years of development the railroads faced much opposition. Canal companies strenuously objected by petitioning state legislatures and by various types of propaganda, and turnpike, steamboat, bridge, and stagecoach companies did everything possible to oppose them, especially in those regions where the railroads were threatening competition. It should be noted that the rivalry was concerned not only with business itself but also with raising capital. Towns along the Erie Canal held mass meetings to oppose the grant of charters to railroads, and in a few parts of the country tonnage taxes were imposed on railroads. Highway tavern keepers added their voices to the chorus of opposition, and many farmers, whose barns or fields were set afire by the trail of sparks from early wood-burning locomotives, condemned them in no uncertain terms. Some farmers, also, believed that the new means of transportation might interfere with the market for horses, hay, and grain.

The rising railroads had to contend also with much ignorance and prejudice. Early trains were ridiculed by some who maintained that they could never be as dependable as stagecoaches, and in the beginning of railroad development a number of races took place between trains and stagecoaches. A distinguished group of Boston doctors gave ominous warning that the jars occasioned by traveling at such excessive speed as fifteen to twenty miles an hour would lead to many cases of "concussion of the brain." In several parts of the country school authorities refused the use of school buildings for meetings in the interest of railroads. For example, a school board in the progressive state of Ohio, replying to a request for the use of a schoolhouse for a debate on the value of railroads, wrote: "You are welcome to use the schoolhouse to debate all proper questions; but such things as railroads . . . are impossibilities and rank infidelity." Religious fanatics assured the public that an age of moral decay had set in, and even many sincere and sane citizens believed that the railroad was a device of the devil "to lead immortal souls down to hell." As the railroad net expanded, opposition and prejudice gradually disappeared.

Many engineering difficulties with engines, equipment, roadbeds and tracks had to be overcome by the early railroads. Engineering had not progressed to a point where the strength of material could be tested scientifically and, therefore, during these years when it was an empiric art, rather than an applied science, locomotives exploded when boiler plates refused to stand the strain of increased steam pressure and cylinder heads blew out with amazing regularity. Brakes, which first were only wooden blocks operated by a foot pedal, were gradually improved, but the air brake did not appear until after the Civil War. Cabs to protect the engineer were not used until the 1840's.

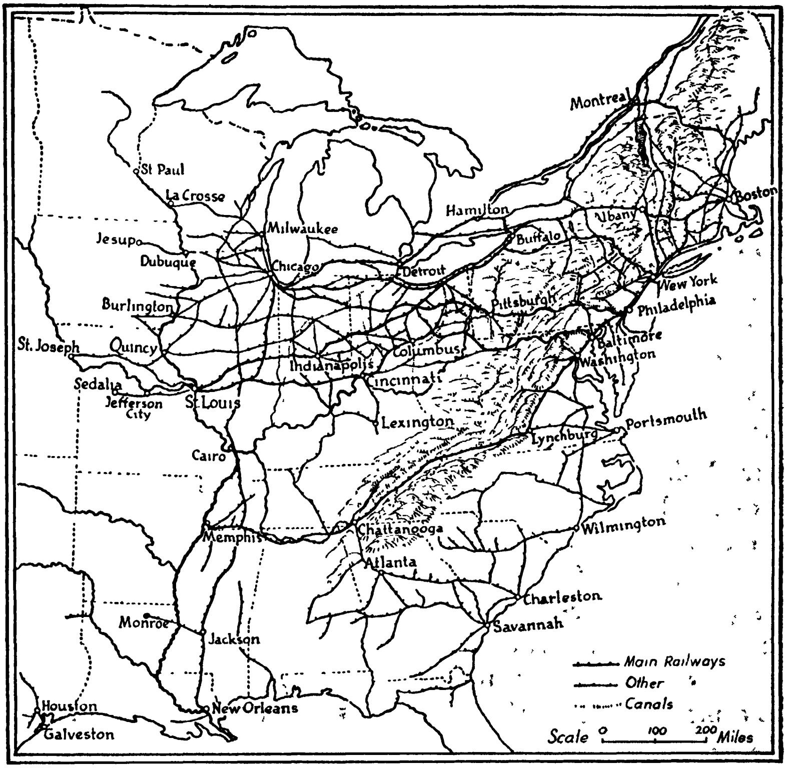
Chain couplings gave way to bars and finally to couplers and pins which allowed some play between cars. Cow catchers first were iron bars placed at the front of the locomotive to protect it by impaling large animals that crossed its path, but this device gave way to bumpers and later to the V-shaped protection. Patents were granted for flanged wheels, for devices to multiply tractive power, and for mechanical legs designed to assist trains up-hill. The records of the patent office show that Americans were becoming skilled inventors in their own right.

The first railroad passenger cars were built from ideas taken from contemporary stagecoaches, market carts, and Conestoga wagons. In Europe they remained short, but in America they grew rapidly in size and gradually assumed a box-like structure. During the early age of experimentation, open coaches were tried on a few railroads. But the smoke and cinders from the wood-burning locomotives and the lack of protection from the weather brought protests from the passengers — gentlemen in high-top beaver hats and ladies in crinolines. Travel at night — for the earliest trains ran only in the daytime — also put an end to open coaches, except for short picnic excursions. The story of the evolution of railways, coaches and cars would fill many volumes.

Among early railroad engineering problems, those relating to roadbeds and tracks were exceedingly difficult to solve. Limited finances resulted in quickly constructed roadbeds with dangerously sharp curves on many lines. But the hazards of such roadbeds soon proved that it was less expensive of money and life to construct them to withstand the strain of heavy rolling stock. Wooden, iron, and even granite piles were tried. The earliest tracks were wooden rails with flat strips of strap iron secured to their upper surface to protect the wood from wear. The iron strips often became loose as a train passed over and curled up at the end, forming what was called a "snakehead," sometimes derailing the train and causing serious accidents. Because of these mishaps and the heavier and speedier trains which were soon rolling over the rails, heavy iron rails were imported from England. Until 1844, all the rails used in the United States were imported, except most of the strip rails and a small amount of cast iron rails. In that year the rolling of heavy iron rails in the United States was begun at the Mount Savage Rolling Mill in Maryland. Rails of the inverted U, or Evans type, and of the T type, designed by R. L. Stevens, son of John Stevens, the American inventor, were manufactured. Other rolling mills began producing heavy rails, but much railroad iron continued to come from abroad. Steel rails were not used until after the Civil War when the Bessemer process came into use. Another problem of the early railroads arose from the use of different gauges. The width between tracks varied from three feet, four inches, to six feet. The disregard for uniformity made it necessary for passengers and freight to change from one railroad to another, with inconvenience to passengers and increased cost of freightage. When Congress had to decide the gauge of the proposed Union Pacific Railroad during the Civil War, it decided on a width of four feet, eight and one-half inches, the English standard gauge. Later, American railroads rebuilt their tracks to conform to this gauge. The consolidation of the small lines into larger systems, beginning in the 1850's, hastened this standardization.

About $1,250,000,000 were invested in railroads between 1830 and 1860. It was not easy to gain financial support for new enterprises because there was much competition for capital with the shipping, canal, and turnpike interests, and with growing manufacturing and industry. But business men, bankers and manufacturers took the lead, and the money was usually forthcoming for new lines. Mass meetings were held to encourage the sale of railway stocks and bonds; enterprising chambers of commerce and boards of trade in many cities and towns did everything possible to publicize the advantages of railroads; and communities bought stock, granted subsidies, and remitted taxes. Europeans invested large sums in American railway securities. Even after the losses to European holders of American securities during the Panic of 1837, which included repudiation and default by several states, British, French and German investors showed their faith in the future of America by investing heavily in American railroad securities.

In addition to financial encouragement from communities, towns and cities, many states aided railroad development and some even established their own. Pennsylvania introduced its own on the Pennsylvania System; Indiana and Illinois planned state railroads, and the former began building one; Michigan took over two private lines whose construction had stopped during the Panic of 1837, and, after operating them, sold them at a large loss to eastern capitalists. A number of states granted subsidies; most granted loans. Massachusetts and Ohio in the North, and Virginia, South Carolina, and other states in the South, subscribed for stock; and a few states guaranteed a part or all of a railroad's securities. State aid was also given by authorizing railroad corporations to issue paper money, redeemable at a future time, to pay for equipment and labor; states paid for surveys; and grants of land were made. Many corporations looked to the federal government for aid, but the constitutional argument, supported especially by the southerners in Congress, prevented direct assistance until the Civil War. However, a new policy was begun in 1850 when indirect federal land grants were made to states which in turn could give them to railroads. Largely through the efforts of Stephen A. Douglas, the Illinois Central Railroad received 2,595,000 acres of land in this manner. Then followed a veritable deluge of grants of public lands to railroads until the practice was stopped in 1871.



RAILROADS BEFORE THE CIVIL WAR

Rise of the Telegraph

Experiments with the magnetic telegraph go back to eighteenth century Europe, although attempts were made in America almost at the same time to send messages with the aid of the mysterious power, electricity, which absorbed the attention of many scientists and inventors, including the ingenious Franklin. While many Europeans and Americans made contributions to the development of the electromagnetic telegraph, it was Samuel F. B. Morse, founder of the National Academy of Design (1826), a professor and portrait painter, who made practicable the sending of spaced impulses — dots and dashes — over highways of copper thread. In 1837, he gave a private exhibition of the telegraph. Lacking money, he and his friends appealed to Congress for financial aid. Several years passed before that body finally voted $30,000 for the construction of a forty-four mile line from Washington to Baltimore.

On May 24, 1844, in the Superior Court room of the national capital a number of spectators surrounded an odd looking machine, with the inventor at the key. Annie Ellsworth made the inspirational choice of the first message and almost immediately the words, "What hath God wrought!" reached Baltimore. This marked the formal opening of the line between the two cities. But before it had been completed to Baltimore, a few messages had been sent over a part of the way. On May 1, 1844 when the line had reached Annapolis Junction, news of the Whig nomination of Henry Clay was telegraphed from that point to Washington, reaching that city an hour before the train arrived with the news. This brought the possibilities of the telegraph to the attention of many Congressmen.

Alfred Vail, the assistant of Morse, did much by his skill and knowledge to aid Morse in perfecting his instrument. Some were of the opinion at the time that Vail and not Morse was the real inventor of the telegraph. But in a controversy between the two men over some of the patents, Morse's claims were sustained. Vail, however, did help improve the mechanical construction of the instrument. It was unfortunate that, as improvements appeared, much litigation arose, and the first decade of the telegraph was marked by unending lawsuits.

For months after the first message was sent, the line between Washington and Baltimore remained almost idle while the government debated whether to make the telegraph a governmental agency. Soon, however, private companies were organized; lines were extended to Philadelphia, New York, Pittsburgh, and elsewhere; and telegraph poles began to dot the American landscape. Ezra Cornell became the financial backer of a line built to Cleveland, Chicago and Milwaukee. Henry O'Rielly, an Irish-born firebrand and a dynamic promoter, built 8,000 miles of line in the Middle West and South. Within a few years there were fifty companies in the United States. Consolidation began with the organization of the Western Union in 1856, which had grown out of earlier companies. By 1860, its lines reached from the Atlantic Ocean to the Mississippi River and wires were being strung across the prairies into the far west. Within a year the Western Union extended its system to San Francisco. By the eve of the Civil War, about 50,000 miles of telegraph had been strung over the country.

It is difficult today to realize the importance of the telegraph to those who lived during the mid-nineteenth century. The vision of such quick communication enchanted men, but its practical uses soon became apparent and were put to good service. Financiers, business men, and manufacturers could now communicate instantly with their representatives, agents, or customers, and the telegraph became an important factor in the rise of "big business." It was also invaluable to railroad development as the location of every train could now be known and traffic intelligently directed without confusion over a developing network of lines. Some railroads, like the Pennsylvania, constructed and operated their own telegraph lines.

The telegraph stimulated men to ponder over other means of quick communication. Many bizarre patents were filed and plans were even made by an Atmospheric Telegraph Company to lay a tube two feet in diameter between New York and Boston to provide parcels with winged speed. But more important and in the end more practicable was the suggestion for the extension of the telegraph across the seas. In 1850, John Roebling wrote a series of newspaper articles on the practicability of a trans-Atlantic cable. This finally became a reality through the work and perseverance of Cyrus W. Field of New York. In 1854, through his efforts the Atlantic Telegraph Company was organized and the cooperation of English capitalists was obtained. Both the British and American governments loaned ships for the undertaking. The first cable of 1857 broke, but the next year President Buchanan and Queen Victoria exchanged greetings over the Atlantic cable. Within a few months, however, the cable ceased to function and the experiment was discredited by many. Immediately after the Civil War the cable was successfully laid from the deck of the steamer, *Great Eastern,* and the way was opened to send telegraphic messages across the ocean.

The Earliest Express Companies

Not long after the beginning of railroad development, the first express companies were established. It had been customary to send money and valuables from one place to another in the care of stagecoach drivers, ship or steamboat captains, and railway conductors. In 1839, William F. Harnden, a former conductor on the Boston and Worcester Railroad, became a special messenger between New York and Boston, carrying valuables and papers for businessmen and merchants of those cities. He found the business profitable; he soon employed others and opened offices in Philadelphia as well as in Boston and New York. Within a few years his business extended overseas. In the same year that Harnden began his special service, Alvin Adams, a produce merchant ruined by the panic of 1837, worked out the same plan between Boston and Worcester. He became prosperous and organized Adams and Company, whose activities soon covered the East and penetrated the South. By 1850, the company was shipping by rail and stagecoach to St. Louis and a subsidiary was organized in California which failed in 1854. The parent company was then reorganized as the Adams Express Company with a capital of $1,200,000, absorbing many competitors, who had entered the business.

In 1850, after many express companies had sprung up, two of them operating in the Northeast — Wells, Butterfield and Company, and Livingston, Fargo and Company — united to form the American Express Company, capitalized at $150,000. Two years later, its chief incorporators, Henry Wells, William G. Fargo and associates organized Wells, Fargo and Company to function in the far West, which before the Civil War eliminated nearly all competitors in that area. It handled mails, goods of all sorts, gold and silver in the region between the Mississippi Valley and the Pacific. By 1860, five large companies controlled most of the express business of the country: the Adams Express Company, the American, the United States, the National, and Wells, Fargo and Company.

CHAPTER X

Industrial Changes

Manufacturing after the Revolution

The American Revolution stimulated many manufactures and industries, the origins of which may be found in the colonial period. But for eight years, all economic activities had been on a war basis. When the treaty of peace was signed and independence achieved there was much concern in the towns about the readjustment to peacetime conditions, especially in regard to the continuance of earlier industries and to the promotion of manufactures which would result in complete economic independence. The close of the war brought a flood of British manufactured goods which were dumped in American seaports in an attempt to recover the earlier trade and to provide a market for the production of the new factories that were arising in England. The outlook for increasing American manufactures was not bright in view of the fact that agriculture was predominant, capital scarce, and skilled labor difficult to obtain.

In the period following the Revolution many merchants as well as industrialists did everything possible to promote manufactures, especially of textiles, and to encourage the expansion of shop industries. Societies appeared, the most important of which was the Pennsylvania Society for the Encouragement of Manufactures and the Useful Arts, in Philadelphia, an outgrowth of an earlier one with similar aims — the United Company of Philadelphia for Promoting American Manufactures, founded in 1775 by Samuel Wetherill, Jr. and a number of associates. Other similar societies were organized after the Revolution in Boston, New York, Baltimore, Wilmington, Delaware and elsewhere. They held meetings to promote manufacturing; they published articles; members agreed to use only American products; prizes and premiums were offered inventors of machinery; and financial aid was sometimes given to encourage certain industries. A few of these societies went so far as to undertake their own manufacturing operations. For example, the Pennsylvania Society for the Encouragement of

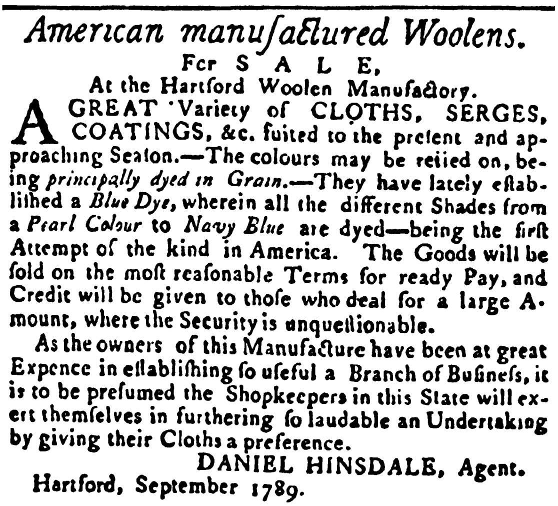
Manufactures and the Useful Arts established textile shops and attempted to emulate the rising factories of Great Britain.

The spinning school movement, which had made progress by the time of the Revolution, aided the efforts to increase the shop production of textiles. Instances of providing instruction for poor children in carding, spinning, weaving and knitting can be found in the seventeenth century in Massachusetts, Virginia and Maryland. During the latter part of the colonial period many communities possessed such schools, philanthropic in nature and intended to give employment to the poor of the urban regions. They were supported by general contributions or by private societies. One of the best examples was the Society for Encouraging Industry and Employing the Poor, established in Boston in 1751. By the time of the Revolution, spinning schools sponsored by such societies were developing into textile shops which contained the germ of the factory system. The attempts to expand and commercialize the spinning schools together with the formation of societies to encourage manufacturing were evidences of a desire to make the new nation economically independent. This period marked the beginnings of the transition from the domestic and shop system to that of the factory system and large scale production.

The Status of Manufacturing in the Early Republic

Not long after the new government under the Constitution was established, Alexander Hamilton made his famous "Report on the Subject of Manufactures" (1791), a painstaking attempt to analyze the industrial situation in the United States at that time. In it he listed seventeen distinct lines of manufacture which he stated were flourishing. These included leather and leather goods, iron manufactures, shipbuilding and woodmaking, flax and hemp manufactures, bricks and tiles, spirits and liquors, paper of different sorts, hats, refined sugars, oil and their products, copper and brass wares, tin ware, carriages, snuff and tobacco, starch and hairpowder, lampblack and other painters' colors, and gunpowder. A detailed statement was made in regard to manufactures under each heading. Hamilton also pointed out that great quantities of cloth and clothes of all sorts were made in the "household way," not only for supplying families but also for exportation. He wrote that textile factories were beginning to appear in New England and were producing goods equal in quality to those of old England.

In his report, Hamilton recommended protective duties, bounties, premiums and every other possible aid to stimulate manufactures. He rejected the Jeffersonian exaltation of agriculture and insisted that manufacturing should be developed as far as possible to increase the national income and to provide a dependable home market for agricultural commodities. All that he got from Congress, however, was a small increase of duties in some of the schedules of the tariff. The report was resurrected and its arguments utilized by the manufacturing interests in the period after the War of 1812. The ideas spread to England and to other European countries. Hamilton was far ahead of his time and his views were in accord with Adam Smith's philosophy of freedom from governmental control as set forth in his *Wealth of Nations* and other writings.



American manuſactured Woolens.

For S A L E,

At the Hartford Woolen Manufactory.

A GREAT Variety of CLOTHS, SERGES, COATINGS, &c. ſuited to the preſent and approaching Seaſon.—The colours may be relied on, being *principally dyed in Grain.*—They have lately eſtabliſhed a *Blue Dye*, wherein all the different Shades from a *Pearl Colour* to *Navy Blue* are dyed—being the firſt Attempt of the kind in America. The Goods will be ſold on the moſt reaſonable Terms for ready Pay, and Credit will be given to thoſe who deal for a large Amount, where the Security is unqueſtionable.

As the owners of this Manufacture have been at great Expence in eſtabliſhing ſo uſeful a Branch of Buſineſs, it is to be preſumed the Shopkeepers in this State will exert themſelves in furthering ſo laudable an Undertaking by giving their Cloths a preference.

DANIEL HINSDALE, Agent.

Hartford, September 1789.

From the "Hartford Courant," Sept. 14, 1789

AN ADVERTISEMENT OF AMERICAN WOOLENS, 1789

Years after the death of Hamilton, Frederick List, of Württemberg, carried on the Hamiltonian tradition of aid and protection to industry. This native of Germany lived in the United States only from 1825 to 1830, but his influence as editor of the *Readinger Adler* in Reading, Pennsylvania, with his activities in the Pennsylvania Society for the Promotion of Manufactures and the Mechanic Arts, marked him as a champion of the American system of protectionism at a time when tariff controversy was reaching a height. While in America, List proposed a national organization of businessmen to make their opinion available to Congress on matters of desired legislation. He also suggested that the newly-organized Franklin Institute at Philadelphia be made into a national polytechnic school where future statesmen could be trained in economic matters. He returned to Germany in 1830, but his ideas, together with those of such men as Mathew Carey and C. J. Ingersoll, did much to influence opinion for protection to manufactures at a time when industrial life was beginning to expand.

Hamilton went much further than simply recommending aid to promote manufactures. He organized the Philadelphia Society for the Promotion of National Industry, which in 1820 became the Pennsylvania Society for the Promotion of Manufactures and the Mechanic Arts. With a group of associates he also founded the Society for Establishing Useful Manufactures, which became known as the S.U.M. A perpetual charter granted by the New Jersey legislature in 1791 authorized the society to carry on manufacturing of different kinds, to sell commodities, to acquire real estate, to improve rivers and project canals, and to incorporate the municipality of Paterson. It was authorized to issue capital stock up to $1,000,000. A large tract of land was bought and a small cotton factory was established at the Great Falls of the Passaic River. Manufacturing came to an end in 1796 because of financial reverses, but long after Hamilton died the region became a great textile center. At the time that Hamilton was projecting his society, the first factories, planned after British models, were built in the United States. Before these are discussed it may be well to consider the revolutionary changes in English industry which ushered in the factory system and set a pattern for other nations to follow.

The English Industrial Revolution

The changes in manufacturing which resulted in the rise of the factory system and later evolved into mass production first took place in England for many reasons. Several countries on the continent, like Italy during the Renaissance, for example, had possessed capital, promoted banking and finance, encouraged handicrafts and other industries, engaged in commerce, and had shown evidences of inventive genius. A little later, these factors, to a greater or lesser degree, were found in France. Yet it was in eighteenth-century England that the great industrial changes first took place and they were due to a combination of circumstances.

Among the many factors that must be considered in a study of England's leadership in the industrial revolution, one of the most important was the growth of her foreign trade. The regulated and joint-stock companies had opened up world commerce, but by the eighteenth century most of the British monopolies had come to an end and the exclusive trading companies had lost their special advantages. It is true that the East India Company was still the greatest single company trading in the East, but the restrictions and monopolies that limited commerce to a relatively small group of men had disappeared. The merchants and shipowners of Bristol, Liverpool, and lesser ports now shared increased commercial advantages with those of London which had been the center of England's seventeenth-century foreign trade. The broadening of commerce laid the basis for the accumulation of capital which was essential and necessary when the great changes in industry came.[1]

The English people were also in a favorable geographical position as they looked out on the Atlantic, fast becoming the center of world trade. The temperate climate and comparatively untapped natural resources of coal and iron were other significant factors in the rapid industrial changes. The European wars of the seventeenth and eighteenth centuries did more harm to industry on the continent than to England. The country was free from political disturbances; the government of Great Britain was relatively stable; and the English people enjoyed more freedom than most European countries of that period. In the eighteenth century, also, important changes took place in the fields of transportation and agriculture, preparing the way for industrial expansion.

As the medieval craft guilds in the cities, towns, and boroughs crumbled, a new form of industry, known as the "domestic system" or, the "putting out" system, sprang up. While this form of industry appeared on the continent as well as in Great Britain, it reached its fullest development in England where the guilds had lost much of their influence as early as the middle of the sixteenth century. As home manufacturing slowly developed, it was limited at first to spare-time work in rural sections during winter months, but by the eighteenth century many individuals and entire families in country regions and in towns spent all their time in such work. Carders, spinners, weavers, and fullers were furnished materials which emerged as woolen cloth of different varieties and grades. Other commodities, such as finished nails, tools, and ironmongery of all kinds, were produced under this system. The clothiers, ironmongers, and others who "put out" the raw materials were in a sense capitalists, employers of labor, and merchants combined. The output of the domestic system added greatly to the production of the handicraft shops of the urban areas.

While at first the domestic system brought an added income to the meager earnings of rustics during their spare time, it had its drawbacks as people became entirely dependent upon this plan of work for a living. It came to be characterized by long hours, low wages, child and old-age labor, and often seasonal unemployment. In many places it degenerated into a sordid sweatshop type of industry. However, it was an important factor in the background of the industrial revolution, for it was capitalistic in its organization and it furnished many workers when the rising factories made their appearance.

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[1] The growth of England's foreign trade can be seen in the tonnage of shipping leaving English ports. In 1700, 317,000 tons cleared the customs; in 1800, 1,924,000 tons. The value of England's exports increased from £5,308,966 in 1705 to £12,599,112 in 1750 and to £38,506,771 in 1797. J. B. Botsford, *English Society in the Eighteenth Century* (New York, 1924), p. 33.

The term "industrial revolution," coined by the French economist, Jérôme Blanqui, denoting the rapid changes that took place in certain English industries beginning in the last half of the eighteenth century, has given rise to the general impression that the changes in the textile industries, ironworks, and potteries together with the use of steam power in driving machinery, broke into an almost unchanging world of small-scale slightly capitalistic enterprise. Such, of course, is not true.[2] There were important industries, whose origins went back far into English history. Iron smelting, coal mining, building construction, shipbuilding, cloth finishing, and the making of bricks, leather, paper, glass, and gunpowder had reached relatively important proportions long before the eighteenth century. For some time, there had been continual changes in methods of production in many fields, new procedures in smelting and refining metals, and advances in the use of motive power of wind, water, and animals. Science and technology made important advances in the seventeenth century and even earlier.[3]

Upon a background of an expanded commerce and relatively well developed industries came rapid changes in a number of manufactures which brought about the rise of the factory system. The changes were ushered in by a series of inventions because of existing needs. There was nothing mysterious about the technological changes of the last half of the eighteenth century. They were the result of the demand for improved production. Mechanization made important advances in the textile industries because these lagged behind most of the others.

In order to understand the changes that took place in the manufacture of textiles, it will be necessary to go back to the seventeenth century. For the purpose of protecting England's ancient woolen industry, a law of 1665 required that every person who died in England be buried in a woolen shroud and an act of 1697 required that judges, professors, and students wear woolen gowns. The Calico Act of 1721, prohibiting the sale or use of Indian cotton fabrics, was also intended to benefit the English woolen and silk industries. It was not possible to enforce these laws strictly. However, the Calico Act had the effect of protecting England's growing cotton manufactures from East Indian competition.[4] Textile machinery was used first in woolen manufacture but soon found its way into the cotton industry which became the chief scene of the famous inventions.

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[2] See the succinct criticism of the term in the article by Herbert Heaton, "Industrial Revolution," *Encyclopaedia of the Social Sciences*, VIII, 3–12.

[3] See G. N. Clark, *Science and Social Welfare in the Age of Newton* (Oxford, England, 1937).

In 1733, John Kay devised the first of the important textile inventions. His drop box and flying shuttle increased the disparity between spinning and weaving in favor of the latter. By combining long-known simple mechanical principles he made it possible for one person instead of two to weave wide cloth. His shuttle was equipped with wheels and was shot back and forth over a traverse raceway by the alternate impact of suspended hammers. The increased speed of weaving, as a result of the new technique, brought about a greater demand for woolen yarn and cotton thread. Some weavers opposed the new method as a threat to their means of livelihood. But scientific bodies like the Royal Society and the newly organized Society of Arts encouraged invention, while the public generally took an interest. But a generation passed after Kay's remarkable improvement of the loom before important changes came in spinning. Then suddenly a flood of mechanical inventions descended on the country. The many-spindled spinning jenny of the weaver and carpenter, James Hargreaves (1764); the roller water-frame of the barber and wig-maker, Richard Arkwright (1769); and the combination of the two improvements into the hybrid "spinning mule" of the weaver, Samuel Crompton (1779), resulted in the acceleration of spinning. Improvements in the loom came slowly although an English parson, Edmund Cartwright, patented a power loom as early as 1785 which was followed by the work of William Radcliffe, Thomas Johnson, and John Horrocks. The Jacquard loom, invented in France in 1801 by Joseph Jacquard, was an important advance in the technology of textile manufacture. Improvements took place, also, in carding and other processes as numerous changes were made in English factories. The new machinery gave an impetus especially to cotton manufacture and opened the way for the production of raw cotton in the United States and elsewhere as the demand for it increased.

The first textile factories used machines constructed largely of wood, driven by horse-power or water-power. Soon, metal machinery came into use when steam power began to compete with that of water. As a result of the demand for iron, the production of that metal underwent many changes. The increasing use of coke in blast furnaces to displace charcoal during the latter half of the century after the secret of the Quaker ironmasters of Coalbrookdale, the Abraham Darbys, father and son, had become known; the blowing cylinders of John Smeaton, introduced in 1768, which slowly displaced the old wood and leather giant bellows; and the application of steam as motive power, resulted in a greatly increased output as furnaces were made larger and new ones built. Changes occurred also at the forges where bar iron was produced. Experiments begun by several men earlier in the century were carried to completion by Peter Onions in 1783 and by Henry Cort in 1784. Cort's "puddling" process made it possible to produce a better grade of malleable iron and also substituted grooved rolls to squeeze or roll the iron into bars instead of the slow, cumbersome process of beating out the metal under ponderous hammers. In the manufacture of machines, many advances were made in the field of engineering, as greater accuracy and precision became necessary, especially in the production of steam engines. The changes affected many industries as well as textiles and iron, but to a lesser extent, although in the potteries the changes should not be minimized as the Wedgwoods, Spodes, and others contributed to the production of improved pottery, stoneware, earthenware, and china. In time, the factory system was applied to other manufactures and the system of mass production took form.

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[4] Imports of raw cotton increased from 1,985,868 lbs. in 1700 to almost 3,000,000 lbs. in 1751.

A most important aspect of the industrial changes was the application of steam to drive the new machinery. Although the Greeks and Egyptians realized the effective force of steam as power, no attempt was made to use it in a practical manner until the revival of scientific interest which came with the Renaissance. Then slowly men began to attempt the application of steam power in a practical way. The experiments of Thomas Savery, a Devonshire gentleman trained as a military engineer, and Thomas Newcomen, a blacksmith and ironmonger of Dartmouth, by the late seventeenth and early eighteenth centuries, resulted in two different steam pumps which represented the progress that had been made in the use of steam power up to that time. Savery's engine, called "The Miners' Friend or an engine to raise water by fire," sucked the water to be drained off into a vacuum and forced it out by the expansive power of steam. Newcomen's atmospheric pumping engine pumped water through the vacuum created by condensing steam. Such contrivances, however, could be used only for such work as removing water from mines and pumping water "for fountains and the supply of gentlemen's houses." They could not be used for driving machinery.

More than half a century after the patents granted to Savery and Newcomen, James Watt, a maker of scientific apparatus at the University of Glasgow, began experiments with models of Newcomen's engine. Watt transformed Newcomen's atmospheric engine into a steam engine,[5] by introducing a separate condenser chamber and closing the cylinder at both ends so that the piston could be driven up and down by steam. Watt received the first of many patents in 1769 and formed a partnership with Matthew Boulton, a Birmingham manufacturer. The contributions of James Watt in bridging the gap between pure science and empirical discovery were substantial and his systematic investigations led to many improvements. Most important was the perfection of the device for converting the power generated by steam into rotary motion (1781). Industrial capitalism soon realized the importance of the improved steam engine. It came to be used to furnish power for producing the blast at the iron furnaces, for the hammers at the forges, and for the machinery at the new rolling mills. It was introduced into flour mills, sugarcane mills, and stone crushing mills. In 1785, steam power was first applied in a spinning factory. Before the end of the century it was replacing water power in mills and factories in many parts of England. The location of industry was no longer required to be on rapid flowing streams. It came to be determined by the availability of raw material, nearness to markets or shipping points, and the source of labor supply.

Internationalizing Manufacturing Industries

England's industrial life had been aided by foreign influences from early times. The Romans, Northmen, Normans, and Flemings had brought certain industries to rural England, many of which left their imprint for later generations. William the Conqueror imported weavers from Flanders; the several hundred workers in the mint of Edward I were mostly Dutch; German and Breton miners worked in the Cornish tin mines in the thirteenth century; the manufacture of English ordnance from the time of Henry VII was promoted by foreign workers who came from France, Germany, the Netherlands, and Italy; large numbers of Protestant refugees left the Netherlands at the time of Alva's persecutions; Huguenot silk weavers, hat makers, glass workers and other skilled artisans fled to England after Louis XIV revoked the Edict of Nantes; Dutch artisans settled in England in the seventeenth century influencing in various ways the art of dyeing cloth, the making of pottery and porcelain, the production of cordage, and the extracting of minerals and metals. These are some examples of how English industry was affected for centuries by foreign influences.

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[5] See A. P. Usher, *A History of Mechanical Inventions* (New York, 1929), pp. 314 ff.

As England built up her manufacturing industries in the eighteenth century, a policy was developed to safeguard them from being copied by other countries. As early as the reign of George I a law was passed imposing penalties on anyone convicted of enticing from England any "artificer or manufacturer" (1718). This was renewed by an act in 1750 which also prohibited the exportation of "tools and utensils" used in the woolen and silk industries. In 1774, a similar prohibition was laid on the exportation of machinery used in the cotton and linen industries, although this law had a special provision excepting wool cards shipped to North America. Seven years later (1781) Parliament imposed drastic penalties for the attempt to export any "machine, engine, tool, press, paper, utensil, or implement used for preparing, working, completing, or finishing woolen, cotton, linen, or silk manufacture." The next year the earlier acts relating to enticing workmen from Great Britain were elaborated and in 1785, a law was passed prohibiting the exportation to any foreign country of tools, machinery, engines, models, or plans of machines used in the iron industry. Heavy penalties were also laid for enticing English workmen employed in iron and steel manufacture. Many English statesmen maintained that this law was not directed against the United States, but at Europe, especially Germany. However, it was quite evident that it was aimed at the new nation which only a short time before had secured independence from the mother country as well as at European countries. This policy of protecting British manufactures was enforced as far as possible until 1825, when the growing industrialization of other countries brought it to an end.

Before the end of the eighteenth century, many of the industrial secrets and new inventions that had been developed in the island kingdom were carried to other European countries and to the United States in spite of the attempts to monopolize the new achievements. England now played a role similar to that of France during the age of Louis XIV, when that country for a time provided the rest of Europe with advanced industrial techniques. Thus France, already industrialized to a point some degrees below that of Great Britain, entered the new era of expansive manufacturing on an extensive scale, especially after 1825, when the English ban on the exportation of machinery was removed and the French were able to obtain new machines and to copy and improve them for their own use.

In Germany, after the revolutionary storms of 1848–1849, the new manufacturing movement was carried out more completely than elsewhere. This was because of the attraction of many English foremen and workers to the manufacturing districts of the Rhineland, as well as to the importation of British machinery. These instructors taught the Germans to compete successfully with the English and French. Germany through aptitude and thoroughness completely appropriated and absorbed English technology and became a leading industrial nation.

Examples of how English ideas were transferred are numerous. Cockerill, an Englishman, in 1816 introduced the method of smelting iron with coke into Belgium and founded the ironworks at Seraing which became one of the greatest in Europe. The Nasmyth steam hammer was used in France even before it was put into operation in England because a sketch which its English inventor had made was secretly copied by French engineers and the great hammer was used first at the works at the Creusot in 1841. Late in the eighteenth century, mechanical ideas were brought across the ocean and put into use in New England by such men as Samuel Slater, the Scholfield brothers, and others. The factory system would have appeared sooner or later in some form in America without help from Britain, because industrial development was beginning to run parallel in many respects in the two countries. But the diffusion of certain English ideas relating to new technological processes resulted in planting the seed of factory production in America not long after it had taken root in England.

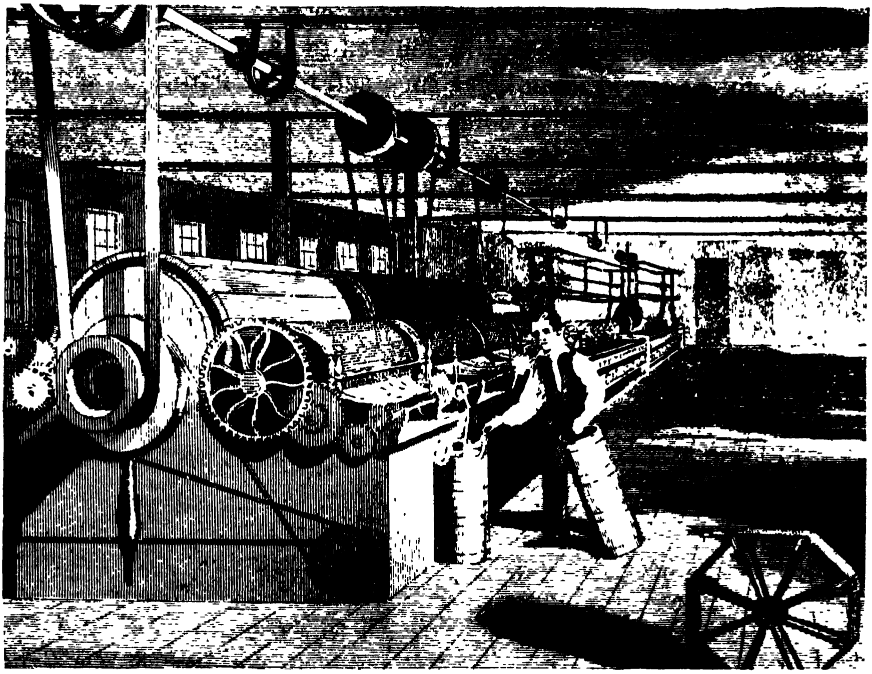
Because of her priority in achieving changes in manufacturing, England led the industrial nations of the world in the nineteenth century. That nation, which at Caesar's invasion was inhabited by crude savages, had become the world's chief commercial, maritime, manufacturing and colonial power. Her commerce extended to every clime; her fleets ruled the seas; her colonies were scattered over the globe, and her manufactures were so varied and extensive that the term "workshop of the world" was not inappropriate. But rivals were arising and by the twentieth century, Germany, the United States and other countries were contestants in the struggle for markets for raw materials and for outlets for finished goods.

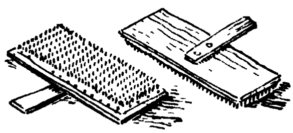
The First American Factories

Prior to 1790, progress had been made in developing American spinning machinery for textile mills or shops and such machines were used in Philadelphia, Beverly, Hartford, Worcester, New York City and elsewhere, a few of them being operated by water-power. Advances were made in the production of woolen and cotton cloth. But the factory system really got under way in the United States when the Englishman, Samuel Slater, introduced the more efficient Arkwright machinery in Rhode Island.

Slater, an employee in the English cotton mill of Jedediah Strutt, a former partner of Richard Arkwright, carefully read the advertisements in American newspapers that found their way to England. Attracted by the prizes offered by the Pennsylvania Society for the Encouragement of Manufactures and the Useful Arts for improvements in cotton machinery, he decided to leave England and come to the United States to seek his fortune. To evade the British laws designed to prevent the migration of artisans, he disguised himself as a farmer boy, slipped away to London, and embarked for New York. Here he found employment for two months in the woolen establishment of the New York Manufacturing Society and then met Moses Brown, a Quaker merchant of Pawtucket, Rhode Island, who persuaded him to make an agreement with his firm, William Almy and Smith Brown. This company had made some progress in the manufacture of textiles but was having difficulties with their machines. In Pawtucket, Slater reproduced from memory plans of water frames, carding machinery, and spinning machines. Men, sworn to secrecy, were employed to make the wooden and iron parts of the machines. Late in 1790, the first cotton factory in the United States containing machinery modeled after Arkwright's began operations. The cotton spun into yarn in the mill was "put out" to poor families to be cleaned and whipped. The goods produced by Almy, Brown and Slater were marketed by the mercantile firm of Almy and Brown.

In spite of Slater's attempts to keep the machinery secret, other cotton mills appeared in the years that followed. They were operated by horse or water power. Many other English workmen came to America and made contributions to the rising factory system. Not all who came, however, were endowed with the skill and genius of Slater. Many were merely pretenders and quite often American manufacturers were deceived and imposed upon by such unqualified men. The English methods took hold relatively slowly. Difficulties in perfecting machinery and competition with English cotton goods were partly the reason. But more important was the fact that there was little available capital to invest in the equipment necessary for the new factories as most of the capital of the country found its way into a rapidly developing commerce and trade, or into agriculture. As the factory system slowly arose, shops containing simpler jennies and looms but often driven by water power appeared in increasing numbers in North and South and even in the new West. Home manufactures of cotton goods also grew and competed with the factory product. The Embargo of 1808, the Non-intercourse Act, and the War of 1812, however, stimulated the factory system. The dozen or so cotton mills of 1800 had increased to eighty-seven in 1810, and by 1815 many millions of dollars had been invested in the factories of New England alone. Progress was also being made in the middle states and to a small extent in the South.





CARDING MACHINE INTRODUCED BY SAMUEL SLATER

From "Memoir of Samuel Slater," by George S. White

At right, hand carding implements

Partly protected by the tariff, cotton manufacture increased. In 1830, there were 795 cotton mills in the country, representing an investment of $45,000,000. By 1860, the capital invested reached $98,585,000. The number of mills in 1840, in spite of reduced protection to the industry, was 1,240; in 1850, 1,074; and in 1860, 1,091. The decrease in the number of mills between 1840 and 1860 was due to consolidation and the establishment of large works, a process which was going on in most important industries. By 1860, about 122,000 were employed in cotton manufacture. The total value of cotton goods produced in 1860 was about $115,500,000. Of this, New England produced $79,000,000; the middle states, $26,500,000; the South $8,500,000; and the West, $1,300,000. At this time, almost seven-eighths of the cotton goods used in the country were made in the United States. It should be noted that in addition to factory-produced cotton goods, some cotton was still being spun and woven into cloth in many homes, although household manufactures were rapidly declining.

Many inventions and the resulting growing efficiency of machinery in cotton manufactures characterized the industry during this period. The improvement of machinery caused the number of operatives to increase more slowly than the quantity of cloth produced. Among the inventions and advantages made in technology were the changes in carding and spinning machinery, constant improvements in the loom, the introduction of cylinder machines for printing calico, especially the engraved cylinders which permitted the production of finer qualities and attractive colored patterns, and the application of water and steam power to drive the machinery. As a result of technological advances, by 1860 Americans were producing the best qualities of cloth in competition with importations from Europe and were beginning to export cotton yarns, sheetings, and coarse calicoes to Spanish America, China, India and the Levant.

The rise of woolen mills runs parallel to those of cotton, although not on such a large scale. The home production of woolen cloth and mixtures of wool and other material, especially linsey-woolsey, continued throughout the eighteenth century and into the nineteenth. Many of the shops of the late colonial period grew larger and throughout the Revolution and the period that followed, spinning jennies, carding machines, and looms were used and improved. From this point of view, a "woolen manufactory" organized in Hartford, Connecticut, in 1788 marked an important advance in the manufacture of wool, for it produced 5,000 yards of cloth a year. At his inauguration in 1789, Washington wore a dark-brown suit made from cloth manufactured by this company. Woolen factories emerged from the shops where woolen cloth was produced when the different processes were brought under one roof, machinery was improved, and power — water or steam — was used to drive the machinery. Technological progress was aided by English workmen like Arthur and John Scholfield of Yorkshire who migrated to Massachusetts in 1792. Improvements were also copied from the cotton machinery. By the beginning of the nineteenth century, increasing numbers of woolen mills were established and a better grade of cloth was produced as a demand arose for the fine-grained wool of merino sheep which were imported in large numbers. As was the case with cotton, the maritime problems from 1808 to 1815 resulted in the increased investment of capital in additional mills. According to the census of 1810, there were twenty-four woolen factories in the country. At the same time there were 1,682 fulling mills to which the domestic or home producers took their cloth to be fulled. The War of 1812 itself gave an impetus to the manufacture of woolen cloth as the demand increased for military equipment. Although many mills were ruined by competition with British goods after the war, there were more than 100 factories in 1820, possessing a total of 700 looms.

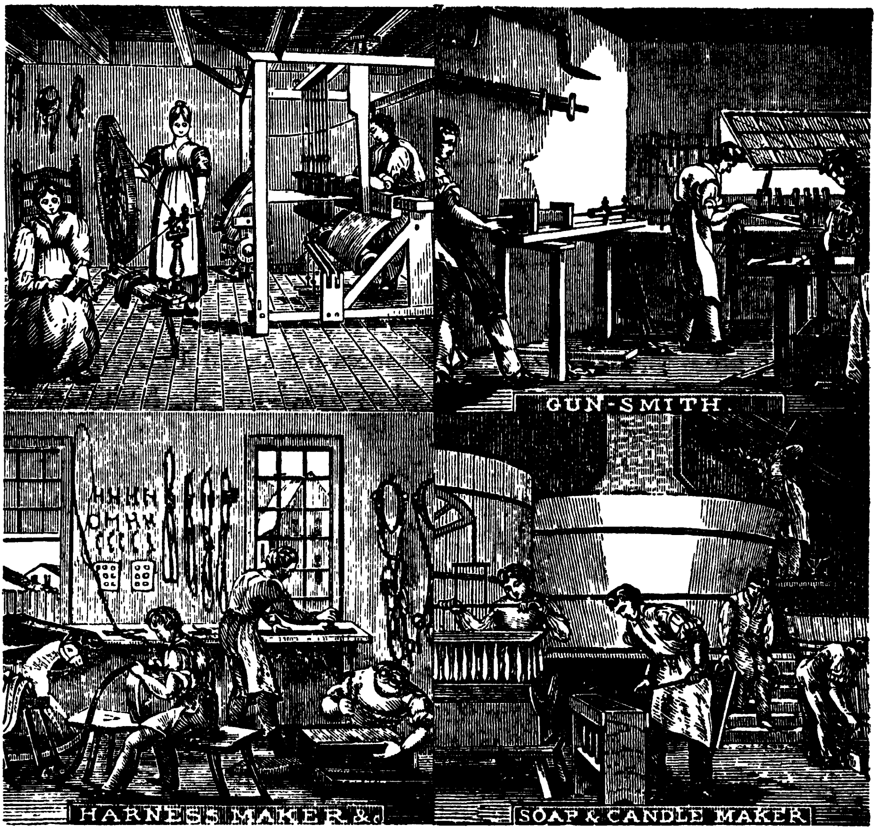
The decade from 1820–1830 was a serious one for woolen manufacturers, for in spite of the protective tariff of 1824, many failed, although new mills were established at the same time. Overproduction abroad which resulted in an overflow of woolen goods to the United States was the chief cause of the difficulties. The "Tariff of Abominations" of 1828 greatly affected the manufacture of coarse wool because of the heavy duties on raw materials. But a revival came in 1830 and progress was made. The census of 1840 reported 1,420 woolen mills in the country, though the cotton industry, which employed more than three times as much capital and labor, was confined in 1,240 plants. This was because woolen mills were much smaller than the cotton establishments. The period 1837–1842 was one of crisis and many failures resulted. Then slowly the industry recovered and increased about two-thirds during the decade before the war. In spite of the setback of 1857 which ruined a few large companies, by 1860 there were nearly 1,700 woolen mills in the country employing about 60,000, and possessing 640,000 spindles and 16,000 looms. A few small mills could be found in Texas and even in California and Oregon. But Massachusetts was the leading woolen state and Pennsylvania ranked second. Among the types of woolen cloth woven in mills in New England and the middle states were broadcloth, worsted, flannel, cassimere and even alpacas. Mousseline-de-laine for women's dresses, composed of cotton and wool, became an article of large production in Massachusetts after 1840 and reached high perfection. Home manufactures of linseys and other cheap cloth for Negro slaves persisted in many places, especially around Philadelphia and Baltimore. Including carpets, blankets, hosiery, and mixed cloths, in addition to the usual types of woolen cloth, the value of goods produced in the woolen industry amounted to $80,000,000 by 1860.

Closely related to the manufacture of textiles was the clothing industry, which rose during this period. While home and shop-made woolen jackets, clothes of homespun, stockings, caps, and mittens had been articles of trade during colonial days, machine produced, "ready-made" clothes appeared in New York stores by 1836 and were first bought chiefly by sailors and by pioneers on their way to the frontier. Such clothes soon came to compete with those made by tailors and in the homes, and were offered for sale in all the leading business centers. The manufacture of men's ready-made clothing was much more important than women's at this time, for in 1860, only about $7,000,000 worth of women's clothing, including cloaks, corsets, hoop-skirts and millinery, were machine-produced — about one-tenth of the value of men's clothes. The invention and improvement of the sewing machine gave an impetus to the manufacture of clothing and also marked the beginning of the sweat-shop system.

Progress in Other Industries

Many changes and much progress took place in the iron industry, the foundations of which were laid in the colonial period. From the beginning of the nineteenth century to the Civil War northern river valleys from the Hudson-Champlain region southward were the important areas of iron production and the valleys of the Lehigh, Delaware, Schuylkill and Susquehanna in Pennsylvania became the chief centers of iron production. Beyond the mountains, the industry developed rapidly in western Pennsylvania and eastern Ohio. In parts of Kentucky and Tennessee, quantities of iron were also produced.

Much of the pig iron during this period was made on iron plantations as in the colonial period. But changes were beginning to take place. These were largely due to the adoption of new fuels. As long as charcoal was used, vast areas of woodland were necessary and ironworks were located in rural areas. The first serious experiments in using anthracite coal in blast furnaces dates from the time of the patent received by Frederick W. Geissenhainer in 1833 which provided for smelting iron with anthracite and a hot blast secured through the utilization of the hot gases escaped from the furnace. By 1840, a number of larger blast furnaces had been built and it was amply demonstrated that anthracite could be profitably used in smelting iron. As entire dependence on charcoal came to an end and with the use of steam to drive the cylinders that provided the blast, many of the new furnaces were built in urban regions. By 1855, the use of anthracite in the production of pig iron had surpassed that of charcoal. During the same period, raw bituminous coal was tried in a number of blast furnaces, which were altered for the purpose, and new ones were also built, especially in western Pennsylvania and eastern Ohio. Some American furnaces used a mixture of anthracite and bituminous coal. Many experiments in the use of coke (produced from bituminous coal) were made in the decade of the thirties. Slowly, coke gained in favor as a blast furnace fuel, but it was not until the latter part of the century that it surpassed its rivals.


GUN-SMITH.
HARNESS MAKER &c.
SOAP & CANDLE MAKER

From "The Panorama of Professions and Trades," by Edward Hazen, 1836

A Few of the Trades of the Period

Technological changes also took place in the production of bar iron. The English invention of Henry Cort of the puddling furnace and rolling mill (1784) was first adopted at the Plumsock ironworks in western Pennsylvania in 1817. Other works of a similar type were built, although much bar iron produced during this period was hammered out at forges and bloomaries. Until 1844, all the rails used in this country, except the "strap" rails fastened to the top of wooden rails, were imported from England. In that year the rolling of heavy rails was begun and by 1850 there were sixteen mills where rails were rolled, with an annual output of 100,000 tons. By 1860, the number of such mills had doubled and one-half the rails, axles and other forms of manufactured iron required by American railroads were rolled in this country.

During the several decades prior to the Civil War many changes took place in the production of secondary and finished iron products, from heavy machine castings down to the smallest household gadgets. The metal industries received an impetus from the contemporary industrial and agricultural revolutions. Castings, hammered iron, and rolled iron were required for engines, machines, agricultural machinery, and ironmongery. In 1860, almost every state produced machinery of some sort. Pennsylvania, Massachusetts, Ohio, and New Jersey led the others.

In 1810, the production of pig iron in the United States amounted to 53,908 gross tons and the blast furnaces numbered 153. In 1860, 563,755 tons of pig iron were produced by 377 furnaces. At the same time 256 works made 513,213 tons of bar iron and ninety-seven produced 51,290 tons of blooms. The amount of steel made in the United States prior to the Civil War was small indeed, for there were only thirteen works that produced 11,838 tons of steel in 1860.

The outstanding industries of this period in the order of their importance were: flour and meal, cotton goods, lumber, iron and iron manufactures, boots and shoes, clothing, leather and skins, woolen goods, sugar refining, provisions, printing and publishing, and carriages. The distribution of miscellaneous manufactures was general throughout the country although not quite so advanced in the newer sections of the country. New York, Pennsylvania, Massachusetts, and Ohio led in the value of output the various miscellaneous manufactures. A trend toward localization was evident in a number of industries. This can be best seen in the textile industries and the production of boots and shoes in New England, the coal and iron industries in Pennsylvania, the manufacture of lard in Ohio, and the production of lead in Wisconsin.

The Influence of Inventions

While some important English inventions influenced the beginnings of the factory system in the United States, American ingenuity soon made itself evident and in the period that followed, both countries learned much from each other in regard to technological developments. In addition to the advances made in the textile and iron industries, the development of agricultural machinery, the improvement in steam engines and railroads, the perfection of the telegraph, the introduction of the sewing machine with its factory applications, and rotary printing presses (especially Hoe's), there were thousands of other inventions that affected the lives of people. They related to heating stoves, cooking stoves, firearms, musical instruments, and to many other improvements.

The invention of "curing" rubber, now called vulcanization after Vulcan, Roman god of fire, is illustrative of the power of invention. Although a fairly satisfactory waterproof cloth had been developed by Thomas Hancock and Charles Mackintosh in England beginning about 1820, the effect of changes in temperature on rubber confined its uses to narrow limits. Charles Goodyear of New York, bringing a mixture of rubber and sulphur accidentally in contact with a hot stove in 1839, discovered the secret of vulcanizing rubber, received a patent in 1844, and made possible the beginnings of innumerable industries in that field. Inventions of all sorts resulted in developing new tastes and in raising the standard of living. An Englishman writing at the time of the Civil War declared: "Mechanical contrivances of every sort are produced to supply the want of human hands. Thus we find America producing a machine even to peel apples; another to beat eggs; a third to clean knives; a fourth to wring clothes; in fact there is scarcely a purpose for which human hands have been ordinarily employed, for which some ingenious attempt is not made to find a substitute in a cheap and efficient labor-saving machine."[6]

The importance of inventions can be seen in the patents that were granted. During the colonial period a few patents were issued by special acts of the legislatures of the different colonies. The first American patent was given in 1641 by Massachusetts Bay Colony to Samuel Winslow for a new process of making salt. Five years later, Joseph Jenkes received the first American patent on machinery in the same colony for a mill for manufacturing scythes. In the brief period of Confederation the states issued patents through special legislation. The first Congress under the Constitution passed a general patent law in 1790, authorized by the clause: "Congress shall have the power . . . to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and inventions." The law placed the responsibility for granting patents in the hands of a board consisting of the Secretary of State, the Secretary of War, and the Attorney General. Three years later the board was abolished and the duty of authorizing patents placed upon the Secretary of State.

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[6] Sir Morton Peto, *Resources and Prospects of America* (London, 1866), p. 100.

In 1802, Secretary of State James Madison gave the Patent Office the status of a distinct unit within the Department of State when he appointed Dr. William Thornton at a salary of $1,400 "to have charge of issuing patents." In 1836, the Patent Office was established by law under a Commissioner of Patents as a distinct and separate bureau in the Department of State. In 1849, it was transferred to the newly created Department of the Interior. Not until 1925 did it come under the jurisdiction of the Department of Commerce. From 1791 to 1860, the number of patents increased from three in the former year to 4,819 in the latter and many of the patents granted during this period laid the foundations for American technological advancement.

The Controversy over a Protective Tariff

The first United States tariff, which went into effect on July 4, 1789, was a revenue measure. Its preamble stated that it was intended "to support the government," to "discharge the debts of the United States," and for the "encouragement and protection of manufactures." But its average rates were about 8 per cent and its highest only 15 per cent, which hardly made it protective in any sense. In design, however, it was partly intended to aid industry as individual members of Congress voiced a demand for protection and local interests played a part in adjusting its rates through "log-rolling" and compromise. It levied specific duties on more than thirty types of commodities, *ad valorem* rates from 7.5 per cent to 15 per cent on a few specified articles, and a straight 5 per cent on all articles not enumerated. While Hamilton was Secretary of the Treasury, slight increases were made several times and, later, the tariff laws of 1804, 1807 and 1808 raised the rates slightly on many products, but no basic change occurred in the tariff until the eve of the War of 1812 when the urgent need for revenue resulted in doubling all its rates for the period of the war and for one year thereafter.

The end of the war brought apprehension about the rising manufacturing industries which had been encouraged by the war and the maritime difficulties which had preceded it. Cotton, woolen, and iron manufactures, especially, had expanded as commercial capital found new uses in industrial enterprises and the European wars forced Americans to manufacture for themselves. With the close of the long period of strife and bloodshed in Europe, many Americans foresaw keen competition between European and American manufactures. Thus, President Madison in his message to Congress in February, 1815, submitting copies of the Treaty of Ghent, said: "No subject can enter with greater force and merit into the deliberations of Congress than a consideration of the means to preserve and promote the manufactures which have sprung into existence and attained an unparalleled maturity throughout the United States during the period of the European wars." Even Jefferson, who earlier had been quite hostile to manufacturing, declared: "To be independent for the comforts of life, we must fabricate them for ourselves. We must now place the manufacturer by the side of the agriculturalist." The speech of Lord Brougham in the English Parliament in which he declared that it was necessary for British manufacturers and mercantile interests "to incur a loss upon the first exportation, in order by a glut to stifle in the cradle those rising manufactures in the United States which the war had forced into existence, contrary to the natural course of things," also aroused much sentiment in favor of protection in the United States.

As soon as the war was over, a flood of manufactured goods from England descended on the country in a constantly increasing volume. History repeated itself in this instance, for, as in the period following the Revolution, British goods were "dumped" on the American market and were sold for whatever they would bring. By the close of 1815, distress was general in New England as a result of foreign importations. In his message of December, 1815, Madison recommended to Congress a measure designed to protect American manufacturing industries. With a few exceptions, the political leaders of the country favored tariff protection, some to protect the investments and prosperity of the owners of the new plants, others because it was necessary that the country become entirely self-sufficient economically. A bill was introduced, not by a representative of northern industry but by William Lowndes of South Carolina. The southern leader, John C. Calhoun, led the debates in favor of it, supporting protection on the ground that it was a wise national policy necessary to bind the different sections together. "Neither agriculture, manufactures, nor commerce, taken separately," he insisted, "is the cause of wealth. It flows from the three combined and cannot exist without each." Henry Clay from Kentucky joined Calhoun in advocating the protective policy. Among those who opposed, the brilliant but erratic John Randolph of Roanoke emphasized his belief that the principle of protection amounted to "the levying of an immense tax on one portion of the community to put money into the pockets of another." Daniel Webster, representing the commercial interests — not the industrial group — of New England also opposed the measure, but was in favor of a moderately protective tariff which should be permanent. With the aid of southern and western votes, the industrialists of the North succeeded in passing a bill which Senator Benton pointed out inaugurated a new policy of protection. In the year in which it was passed, the customs revenue of the government reached a figure not equaled until 1850. Imports, valued at less than $13,000,000 in 1814, while the war was on, jumped to $147,000,000 in 1816. This was evidence of the need of protection and justification for the measure.

The tariff of 1816 provided duties which ranged from 7.5 per cent to 30 per cent. The duties imposed on cotton and woolen goods were 25 per cent. For the first time the minimum principle was applied — no cotton cloth was to be valued at less than twenty-five cents a yard — the object being to exclude cheap Indian cotton goods. The law, however, did not completely suit the most ardent friends of protection. Further demands resulted in increases in 1818 on pig iron and also on hammered iron, which was now suffering from competition with English rolled iron. The tariff did not satisfy the cotton interests, for another problem confronted them in the rise of the price of raw cotton, caused by the revival of the foreign demand. The price of raw cotton rose from thirteen cents a pound in 1814 to twenty-seven cents in 1816. However, the introduction of new power looms and other improved machinery helped them to solve their difficulties at least for a time.

The financial crisis of 1819 brought renewed clamor for protection, for one of the causes of that depression was the increased importation of foreign goods. Manufacturers ascribed their distress to the want of adequate protection to home industry against the cheap production of foreign goods, fraudulent invoices, unlimited auction sales, and long-time credit. Conventions of manufacturers were held and petitions sent to Congress asking for an increase of duties. The bill of 1820, drafted while the emergency still continued, increased duties considerably. It passed the House by a comfortable majority vote, but failed in the Senate by a single vote. It was becoming evident that as the movement for protection gained in the North, the southerners increasingly opposed it.

After the defeat of the tariff bill of 1820, members of Congress in favor of high protection tried each year to have the duties on imports raised but without success until 1824. At that time, it was no eastern representative of industry who led the debates for increased protection, but Henry Clay of Kentucky, who stressed protection as a part of his American System. His object was to establish a home market and "to lay the foundations of a genuine American policy," thus eliminating dependence upon foreign goods and markets. He advocated protection, not to favor local interests and special industries but as a general system which would make the United States independent of foreign nations. He argued for improved roads and canals so that the farmers might more easily transport their products to industrial centers and over which manufacturers could send their goods to the farmers. He expected the industrialists to support transportation projects in return for western agricultural support of the tariff. This explains Clay's leadership in sponsoring the tariff bill of 1824, but to the two major premises of the American System, the Old South objected. That section, largely agrarian, was beginning to look with misgivings on a protective tariff, which it believed raised prices, and also opposed systems of internal improvements at government expense. The votes on the measure showed that the middle states, Kentucky, and the Northwest were entirely in favor of it, the South and the Southwest (except Kentucky) were solidly against it and New England was divided. Outside the latter area it was evident that the tariff had become a sectional issue.

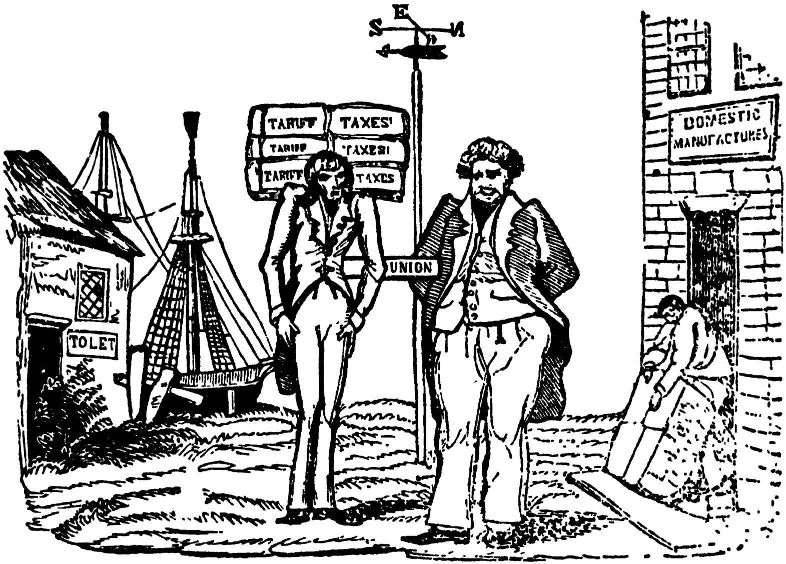
The tariff of 1824 granted increased protection to the manufacturers of woolen goods, iron, hemp, lead and glass. Duties were raised on silks, linens, cutlery, and spices, although it was recognized that the commodities did not interfere with any home production or manufacture. A specific duty was levied on raw wool and the principle of minimum value was extended from cotton to woolen goods. The principle of the law was definitely protective. For a time it satisfied most of the manufacturing interests.

Not long after the passage of the tariff of 1824, Great Britain reduced the duty on foreign wool from sixpence to a half-penny per pound with the result that the British woolen manufacturer could still undersell his American rival. At the same time new mills were built in the United States in the expectation of protection against foreign competition. It became evident, also, that defects in the tariff law were responsible for the frauds practiced by many English shippers who, by falsely evaluating their goods, escaped the high duties. As a result of competition with English goods, the woolen manufacturers of the country were in serious difficulties and made pleas to Congress for increased protection in which they were joined by the producers of wool, whose interests were also depressed. Congress took heed and in 1827 a Woolens Bill was drafted. It aimed to apply the full establishment of the minimum principle to wool and woolens, thus granting additional protection. Although the measure passed the House, it failed in the Senate by the casting vote of the Vice President, John C. Calhoun. In 1816, this southern leader had done everything possible in the interests of the tariff. Now he was allied with the anti-tariff majority of his section of the country.

The failure of the Woolens Bill was followed by attempts to secure combined and systematic action for protection. A Tariff Convention was held in Harrisburg, Pennsylvania, in the summer of 1827 and a campaign was inaugurated for increased protection to raw and manufactured wool, hammered bar iron, hemp, flax, and other commodities. A plan for a complete protective policy was set forth in a memorial to Congress and in an address to the people of the country. The memorial reached the House committee on manufactures which had a majority of members favorable to Andrew Jackson's nomination for the presidency. A measure was drawn up designed to be defeated by Congress but which was expected to insure Jackson's election. It contained such high duties on raw materials that it was believed the New England representatives would vote against it, which, together with the opposition from the South, would defeat it. It was expected that the failure of the measure would divide the opposition to Jackson and would discredit the administration of President John Quincy Adams, his opponent, in the eyes of those demanding high protection. The outspoken John Randolph succinctly summed up the scheme when he stated: "The bill referred to manufactures of no sort or kind, but the manufacture of a President of the United States." It was purposely prepared to provide sectional jealousies and political intrigues.

The plan of Jackson's friends, however, miscarried insofar as it was passed by Congress. The New England protectionists voted for the bill in spite of its high duties on raw materials that were needed by the manufacturers of that section. With "wry faces" they swallowed the bitter dose in the interests of the gain obtained in the protection of their manufactured products. These votes were sufficient to attain a majority and the measure became law. The tariff of 1828 reached the apex of protective legislation prior to the Civil War. Increases on iron products went further than the recommendations of the Harrisburg Convention. The law granted high protection especially on woolen manufactures and raw wool received added protection. Rates were increased on many types of manufactured goods. The duty on hemp, as on many raw materials, was high and added to the expense of rope-makers, shipbuilders, and shipowners.

The new measure was derisively termed the "Tariff of Abominations" or the "Black Tariff." The South now became not only impatient but hostile. As the news of its passage reached that section, flags were placed at half-mast while parades and meetings expressed opposition to it. Leaders threatened resistance, the press condemned the law, and legislatures adopted resolutions voicing popular feeling. It was South Carolina, however, and not Virginia, mother of the South, that led active resistance to it. Calhoun secretly produced the "Exposition and Protest" — setting forth the theory of states' rights and opposition to the tariff — which was printed by the legislature of South Carolina. Before taking action the South looked forward to the election of Jackson and hoped that the hero of New Orleans would champion their cause and prevail upon Congress to reduce the tariff and change the policy to one of securing revenue only.



From "The United States Weekly Telegram," November 5, 1832.

A CARTOON OF 1832 SUGGESTING CONDITIONS IN THE NORTH AND SOUTH UNDER THE PROTECTIVE TARIFF

Jackson was lukewarm toward the tariff issue, although in his messages he pointed out that the abuses of the law should be remedied. Nullification sentiment increased in South Carolina but the Unionists there prevented a call for a convention. Attempts were made in Congress to revise the tariff downward and to remove the inconsistencies. The law of 1832 which followed, did obliterate the grievous "abominations," but the protective policy remained. Events now moved swiftly in South Carolina. A convention in that state adopted an Ordinance of Nullification declaring the acts of 1828 and 1832[7] null and void, after February 1, 1833. The legislature passed laws providing machinery for enforcing the ordinance even to the point of using military force. Threats of secession were made if the federal government should try to enforce the law. In December, 1832, during the excitement of threatened revolution by the planters, Jackson urged Congress to reduce the tariff to the lowest possible point consistent with protecting those products that might suffer from foreign competition. He issued a Proclamation to the People of South Carolina in which he appealed to them, but also condemned nullification and threatened to enforce the federal laws at all costs.

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[7] This measure, designed to go into effect on March 3, 1833, never became operative, for it was superseded by the compromise tariff act.

South Carolina called for a convention of southern states, but without success, for the rest of the South opposed nullification. Congress considered a new measure, the Verplanck bill, which proposed to reduce duties drastically within a period of two years. It was too extreme and therefore could not solve the problem. Henry Clay now suggested the compromise of 1833. It provided for a gradual reduction of all duties exceeding 20 per cent so that by 1842 no duties would be above that rate. It enlarged the free list somewhat, provided for home valuation of goods after 1842, and abolished the credit system in payment of duties, also after that date. Clay was motivated by the seriousness of the situation, the fear that the protective system might be overthrown entirely, the possibility that Jackson might send troops into South Carolina, and possibly by the hope that the tariff could be increased some time in the future. The compromise tariff was accepted before South Carolina put its nullification program into effect and thus serious difficulties and even bloodshed were undoubtedly averted. Northern fears of immediate drastic reductions in the tariff, the question of states' rights over sending troops into a state nullifying a federal law, the belief that the southern states as a whole, while objecting to protection would not follow South Carolina to the extreme of nullification, and the fact that many believed the new tariff law would give capital and labor time to adjust themselves to the changes, were factors in securing the passage of the bill.

As the compromise tariff reached its minimum rates in 1842, vigorous protective sentiment was revived. The time was auspicious, for the Whigs exercised control for a brief period. The loss of government revenue brought about by the panic of 1837 provided an opportunity for the protectionists, who argued that the tariff was so low that it could not protect certain vital industries nor even produce a sufficient revenue for the government. The law of 1842 restored protection as duties were raised, but not uniformly, to the level of the tariff of 1832. The average rate on dutiable commodities under the measure was about 35 per cent.

The Whig policy did not last long. The Walker tariff of 1846 inaugurated a low tariff policy which continued to the eve of the Civil

War. Aside from this, the measure, which largely followed the recommendations of Secretary of the Treasury Robert J. Walker, was remarkable for its brevity, condensation and comprehensiveness. It introduced well-organized, classified and graded schedules beginning with A which included chiefly luxuries at 100 per cent duties, down to I, which was the free list schedule on such commodities as coffee, tea, and copper ore. The law also defined more clearly than ever before methods of appraisement and established a system of government warehouses where goods could be kept for a specified length of time without the payment of duties. The act of 1857 reduced the tariff still lower chiefly because the income of the government exceeded its requirements. It reached an average of 18 per cent. Soon after it was passed a commercial panic broke and the country as well as the government suffered from its effects.

Beginnings of Organized Labor

The germ of American labor unions may be found in the temporary associations of journeymen that were formed in a few crafts during the colonial period. While some of these organizations occasionally carried out strikes against the masters or employers and in other ways protested against certain conditions of labor, they were primarily beneficial societies. All were local and ephemeral. As the cleavage between the employer and employee classes began to broaden in the latter part of the eighteenth century and the early nineteenth century, they increased in number and while they still stressed mutual aid and friendly benefits for sickness, accident, and death, many of them took collective action in the defense of standards of apprenticeship, resisted competition with inferior workmanship, defended themselves against charges of combination and conspiracy, and sought better working conditions. Among these craft organizations, a few of the most important were the Philadelphia carpenters (1791), the Philadelphia shoemakers (1792), the Philadelphia Society of Journeymen Cordwainers (1794), the Baltimore printers (1791), the Baltimore tailors (1795), and the New York Society of Journeymen Shipwrights (1803). A number of these craft and beneficial societies were incorporated by state legislatures, twenty-four being chartered in New York between 1800 and 1810, such as the New York Masons Society and the Albany Mechanical Society. The textile factories which arose at this time, employing women and children as well as men, were not touched by this early movement.

Although the number of labor organizations increased during the first quarter of the nineteenth century, progress was slow and labor gains were small. This was due partly to the fact that public opinion generally opposed such organizations on the grounds that they were unpatriotic, dangerous, illegal, and were responsible for increasing the prices of commodities. Labor did have the sympathy of a minority who insisted that workmen be given the right to organize to improve their condition. But the courts opposed. In England the Combination Acts (1799 and 1800) made it illegal for workmen to form unions in order to get higher wages or a decrease of hours. These influences had the effect of discrediting labor organizations in the United States. Employers, too, vigorously opposed and formed associations. The Society of Master Cordwainers of the City of Philadelphia (1789) and the Boston shipowners are examples of early employers' associations, which, while promoting social and educational activities and attempting to secure legislation to aid their particular trades, also opposed the rising unions of workmen within the various crafts.

Few strikes occurred among the small number of craft organizations of the colonial period because the relationships between the master workmen and the journeymen were closer than in the period that followed. The guild system, while never strong in America, had the effect of preventing to a certain degree the growth of a strong class consciousness between the two groups. But, by the latter part of the eighteenth century, craft societies carried out a number of strikes or "turn-outs" as they were called which revealed the growing separation of the two classes. In 1776 and 1786, the Philadelphia printers struck against a reduction of wages; in 1795 and 1805 the tailors of Baltimore walked out of their shops, making certain demands; and the journeymen shoemakers of Philadelphia called strikes in 1796, 1798, and 1799. In 1805, the Philadelphia Cordwainers (shoemakers) went on strike demanding the wage scale prevailing in New York and Baltimore and a discontinuance of the rebate of wages for export work. Eight union leaders were arrested on a charge of criminal conspiracy. The case was tried in the Mayor's Court. The prosecution quoted British authorities to the effect that a "conspiracy" of workmen to raise their wages was criminal at common law. The employers complained of their inability to carry out contracts, the refusal of the union members to work with nonmembers, violence, and the application of a boycott. The men were found guilty of conspiracy and each fined $8.00. The strike came to an end and an important precedent was established for the prosecution of labor union activities in the years that immediately followed.

Five other criminal conspiracy cases were brought against union shoemakers during the period, three of which were decided against the workmen. By 1809, such terms as "scab," "general turnout," and "strike" were commonly used. In the celebrated trial of the journeymen cordwainers of New York City in 1810, as well as in the labor disputes among such groups as shipbuilders, carpenters, printers and hat workers, it became evident that the strike was beginning to rise to some importance as a weapon of labor. But the number of strikes to 1835 was not large — records of twenty-four exist — nor were they of serious consequence.

Beginning in 1827, the labor movement entered a new phase, characterized by the combination of local societies or unions into trade associations. As a result of the failure of a strike of the Philadelphia journeymen carpenters, who sought a ten-hour day, labor leaders of that city, in 1827, were successful in uniting a number of craft societies into one unit, known as the Philadelphia Mechanics' Union of Trade Associations. Six years later, this organization became the Trades-Union of the City and County of Philadelphia, and by 1836 included fifty-three societies with more than 10,000 members. The movement took hold elsewhere. The General Trades-Union of New York City included fifty-two societies. Similar movements could be found in other cities including Baltimore, Boston, Albany, and Newark. A regional union, the New England Association of Farmers, Mechanics, and Other Workingmen, also appeared. After these general trade-unions were formed, an attempt was made to organize them nationally. Conventions were held in New York (1834 and 1835), and in Philadelphia in 1836 and 1837. The latter was poorly attended and the entire movement was obliterated by the panic of 1837.

The establishment of the Philadelphia Mechanics' Union of Trade Associations in 1827 produced a workingmen's party in that city. Such labor parties were formed in other localities from Maine to Georgia. Labor candidates met with success especially in New England, New Jersey and Delaware. This political aspect of the labor movement was short-lived, but was not bare of results. It supported a number of reforms, including free, tax-supported schools, the abolition of imprisonment for debt, mechanics' lien laws, and changes in the compulsory militia system. These reforms were achieved in many states during the period. Among other demands, not as successful at this particular time, were the restriction of child labor in the factories, the abolition of chartered monopolies, and election and judicial reforms.

Between 1834 and 1837 a large number of new craft unions appeared, including a few women's organizations among factory workers, seamstresses and bookbinders. Some of the new local unions joined the trade-associations in their respective communities; others remained independent. At this time, the first attempts were made to form national organizations of a single craft. The cordwainers from different cities sent forty-five delegates to a cordwainers' convention held in New York in 1836. The combmakers, carpenters, weavers, and printers also held separate national conventions in the same year. But this movement did not get far. The panic of 1837 put an end to most labor organizations when large numbers were thrown out of work. The progress made by local unions, associations of local unions, the national organization of trade unions, and national organizations of single trades, came to an end. Only a few local unions lived through the disastrous years, 1837–1842.

During this period of labor activity, the first labor papers appeared. The earliest wage-earners' newspaper published anywhere was the *Mechanics Free Press,* of the Philadelphia Mechanics' Union of Trade Associations. Its initial number was published in January, 1828, antedating the first similar journal in England by two years. Other labor journals appeared in America. George H. and Frederick W. Evans began publishing the *Daily Sentinel* and *Young America* in 1830. A little later, George H. Evans became editor of the important *Working Man's Advocate.* These labor papers supported many of the reforms demanded by labor during this early period.

Following the crushing blow given to labor organizations by the panic years, labor was affected by the humanitarian and socialistic ideals of the decade of the forties. Labor congresses were held and workingmen's associations formed, but most often by philanthropists who had an interest in labor rather than by the workers themselves. The New England Workingmen's Association (1845) is a good example of the type of labor organization of the period. Many groups of workingmen developed cooperative buying. At the meetings and congresses of the various workingmen's associations a number of reformers, such as Charles A. Dana, Albert Brisbane, George Ripley, and Wendell Phillips, took part. Among the reforms discussed and demanded by workmen in the cities were land reforms — free lands for homesteads and a limitation on the amount of land one person could own; the ten-hour day; and improved working conditions. Under the leadership of utopian reformers a few experiments were tried in communal living but these all failed (p. 263).

At the time when workers' organizations were at a low ebb, much was achieved in the interests of labor. This was the result of the agitation of earlier years, the sorry plight of many workers in certain industries, the changing attitude of many toward labor, and the interest of philanthropic leaders. In 1842, the Supreme Court of Massachusetts in the case of the Commonwealth *vs.* Hunt declared that a trade union was a lawful organization, that a strike for a closed shop was legal, and that the members of a union were not collectively responsible for illegal acts committed by individuals. While some aspects of the decision were not upheld by other courts in later times, the decision was a turning point in the legal history of American trade unionism. Another example of a gain for labor can be seen in the executive order issued by President Van Buren in 1840, establishing the ten-hour day for laborers and mechanics in the employ of the federal government. In 1843, Massachusetts forbade the employment of children under twelve years of age for more than ten hours a day. In 1845, a committee appointed by the Massachusetts legislature investigated labor conditions in that state, the first legislation to take such a step, although the committee accomplished little. In 1847, New Hampshire enacted a ten-hour factory law. The next year Pennsylvania provided for a ten-hour work-day and forbade the employment of children under twelve in cotton, woolen, silk, and linen mills.

During the decade of the fifties, labor organizations revived and the number of local craft unions increased rapidly. The origin of several labor unions of the present can be traced to that decade. Many were now organized on a national scale. A Convention of Journeymen Printers met in 1850 and two years later became the National Typographical Union of North America. National unions were also formed among the stonecutters, hat finishers, ironmolders and machinists, and blacksmiths. On the eve of the Civil War, twenty-six American trade unions had national organizations. The panic of 1857 caused much unemployment and affected the labor movement adversely to some extent, but, because of the shortage of workers during the war, labor emerged after that conflict in a greatly strengthened condition.

Rise of Industrial Towns

As the factory system arose, industrial or mill towns made their appearance. The movement from country districts toward urban centers became very perceptible after 1820 as the textile industries expanded. The population of the mill towns of New England, New York, and Pennsylvania grew rapidly. Other types of manufacturing industries also aided the rapid growth of population in the new industrial centers.

As increasing hordes of workers left the farms for the towns, they had to adjust themselves to a new way of living. Their former freedom of action was now changed to regimentation; the broad spaces they once commanded disappeared as they crowded into barracklike homes; and the evils ever present in city life made their appearance. Drunkenness, pauperism, juvenile crime and other ills grew. In the older commercial cities, the old-time craftsman slowly disappeared as the new skilled and unskilled industrial mechanics increased in number.

While most of the towns were similar in many ways to English industrial centers of the same period, with their attendant misery and poverty, there were many exceptions. The traveler, Harriet Martineau, wrote in glowing terms of the factory operatives at Waltham with their lyceum, library and lectures. She took note of the "well-nourished and intelligent dandy mechanic" in places that she visited in the North. For several decades, Lowell factory girls with their white dresses and excellent deportment, housed in strictly chaperoned boarding houses, lived relatively happy and correctly even though hours were long and wages not high. Fair conditions and programs of entertainment were provided to attract operatives from the farms. Charles Dickens visited the Lowell mills and was enthusiastic about the life of the workers there. But such conditions were not representative of most of the towns, where squalor and evil were widespread. During and after the panic of 1837, the lot of the factory worker was not ideal, for hours of work for both men and women were long; wages were low; and there was a constant speeding up of production.

Experiments in Reorganizing Industrial Society

The misery that rising industrial urban centers brought as the gulf between classes broadened, as workers were crowded together in factories and homes, and as poverty increased because of depression or misfortune, led many thoughtful persons to wonder whether society could not be better organized. The Utopian dream goes far back into the past, long before industrialization and no doubt is as old as the imagination of man itself. The settlement of America resulted in many practical efforts to realize such a vision, for the country in its early days offered cheap, good land, freedom from oppression, and a general attitude of hope. At first, most of these plans were religious in scope and the celibate ideals which were common to many of them brought a natural end to those experiments. But during the decades prior to the Civil War, experimental Utopias appeared which were practical attempts to apply cooperative principles to small communities in order to reshape the rising capitalistic form of society. Many were definitely filled with the religious spirit as people tried to escape the first hideous impact of the industrial revolution on an older agrarian civilization. But others were systematic attempts to create a happier form of industrial order. The first, and one of the most important attempts to accomplish this was made by Robert Owen, the British philanthropist and industrialist.

Robert Owen, who was born in Wales, worked his way up from the ranks of labor to become a prosperous industrialist. He married the daughter of a textile factory owner in New Lanarch, Scotland. After his father-in-law's retirement he controlled the plant and then attempted to devote himself to improving the living conditions of his employees. He was especially interested in working out his accepted philosophy which stressed the principle that the environment shaped character. He also believed that the profit-system was wrong and that wealth belonged chiefly to the labor which created it. As a beginning, he reduced working hours; he ruled that no children under ten years of age should work in his factories; he built decent homes; he provided free schools and free medical service for his employees; and he opened stores where provisions could be obtained almost at cost. Although his community was greatly improved, he could not put his socialistic principles completely into effect because his partners and other industrialists opposed, ridiculed, and prevented him. After publishing his *Social System* in 1821, in which he condemned the existing social order in its stress on individualism, competition and gain, and declared that the happiness of the many should be placed above the enrichment of the few, he turned to America as the best place to begin the establishment of his self-sufficient communities.

In 1825, Owen founded the New Harmony settlement on the Wabash river in Indiana, buying a large tract of good farming land from the Rappites, a celibate group which moved to Pennsylvania. Following a preliminary organization, the constitution of "The New Harmony Community of Equality" was adopted. It provided for the equality of property, labor and opportunity as well as complete freedom of speech and action. There were to be no social grades and no wages paid. All were to cooperate and each member of the group was to contribute to the general effort and receive its benefits according to his needs. The industrious and well-disposed were invited to join the community. But religious and political fanatics as well as a number of conscientious and well-meaning individuals took up their abode in New Harmony. About 1,000 men, women and children of all types were attracted to the new colony. Some farming was begun, and a hat factory, sawmill, candle factory and shops of different sorts were built at the expense of the founder, who left his son Robert Dale Owen in charge of the community as he toured the United States and Mexico giving lectures on his socialistic concepts and plans. There was no dearth of inquisitive travelers to the community, who stopped at its tavern and made it pay. But the experiment itself failed. The constant clashes between differing personalities, the dislike of work on the part of many, and the lack of any real authority in the community which resulted in virtual anarchy, brought about its end, although several attempts were made to improve conditions. In 1827, Owen admitted failure. A few communities patterned after New Harmony sprang up in different parts of the country but, like the parent colony, all were equally short-lived.

Among other plans to establish ideal communities, the ideas of Charles Fourier, a pioneer French socialist, were followed. Unlike Robert Owen, who was sure that the environment shaped character, Fourier insisted that human nature was unchangeable and therefore society must be adapted to the individual. He believed that groups should be organized into ideal communities, each consisting of about 1,600 persons living in a state of self-sufficiency on several thousand acres of land. In each of the cooperative communities, surpluses should be produced and equitably distributed among the three classes: labor, capital, and talent. Albert Brisbane, an American disciple of Fourier, returned to the United States from France in 1834 and began lecturing and writing about Fourierism. Some forty communities sprang up although Brisbane had little to do with organizing them. All were unsuccessful. The Brook Farm Institute of Agriculture and Education, organized by George Ripley and a number of New England writers and artists in 1841, resulted from the criticisms of the developing industrial society of that period, but was touched by the philosophy of Transcendentalism, and was organized partly on the Fourier plan. The group attempted to create a cooperative community of cultured individuals in which manual and intellectual labor could be united. Many notables, including Nathaniel Hawthorne, Charles A. Dana, and others were members. Although marked by success in entertainments, musicales, debates, an educational program with outside students, and a generous economic democracy, the project failed as a disastrous fire and debt brought it to an end by 1847. The memory of Brook Farm has been kept alive by the writings of many who were members or who visited the community.

Among the most radical communal experiments in social and religious thinking, the Oneida Colony in New York state was outstanding. It was the most prosperous and the best organized from the industrial point of view. The Perfectionists, as they were called, worked out new forms of social relationships, especially in regard to economic communism and a plan of "complex marriage." John Humphrey Noyes, leader of the group, and his fellow members believed in industrial progress but rejected the "evils of competition." From its beginning in 1848, the community grew. Machine shops, canning and silk factories, and other types of works were built. A branch colony was established in Wallingford, Connecticut. The Oneidans survived when other similar experiments were only memories. In 1879, chiefly because of objections from the surrounding communities to their communistic method of living, especially to the plan of "complex marriage" and also on account of dissatisfaction from the younger element within the group, communism was abandoned, but the industries were continued under joint-stock ownership at Niagara Falls, Ontario, and in the state of New York.

Most of the experiments to reorganize society on a community basis ended before the Civil War, although a few, like the Oneida Colony, continued for some time after. The majority of attempts failed for several reasons. With few exceptions, the necessary preparations were not made, and there was little careful planning. Most were begun without any serious thought about finances and failed when money was lacking. Communal enterprises were not in accord with American ideas and ideals of that time, for rugged individualism was the keynote of American democracy in a period when the country was lusty and growing. The communities also attracted many undesirable persons, including those who were quarrelsome, lazy, and fanatical, although many sincere and well-meaning people sacrificed much in their work and aspirations for human betterment. Most of the communities were in the North, although one, which became extremely successful, finally took root in the far West. The Mormons, who were forced to move to Utah, organized a community based on religious principles, which in time developed a thriving economic community (p. 199), although the ideal of complete communal living did not mark that group.

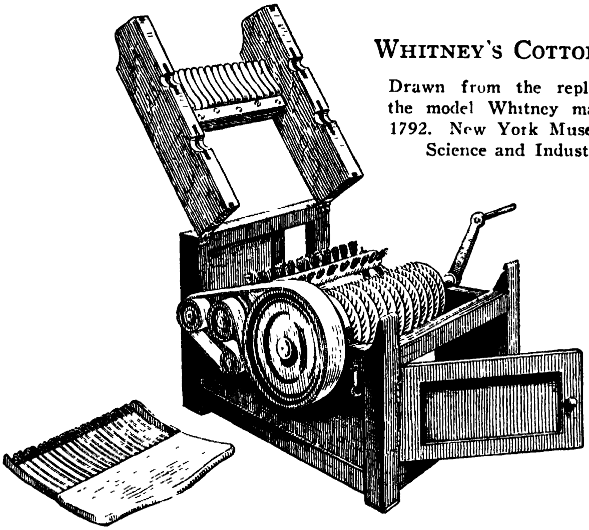
CHAPTER XI

Agriculture in the Middle Period

American Agriculture in 1790

When the new and promising Republic was established, nine out of every ten adults devoted themselves to farming. Only one in ten was engaged in commerce, manufactures, or other industries. Northern farming westward to the frontier was largely self-sufficient, for the ideal was to produce almost everything that each family needed, including food, clothes, furniture, and tools. The profit motive and the spirit of capitalism had not yet seized the imagination of many Americans, and life, though rugged and difficult, was relatively calm and peaceful. Near the seaports, a number of farmers grew surpluses of wheat and other agricultural products for the coastal urban centers and also for export. In the South, the farms which outnumbered the larger tobacco plantations were chiefly of the self-sufficient type, although the plantation owners dominated the area economically, socially, and politically.

One of the most striking features of the agricultural history of the first half century of the Republic was the rise of cotton culture. During the colonial period relatively little cotton was grown in the South for commercial purposes, although cotton plants decorated many a prim southern garden. Some cotton was used in making fustian, a blend of cotton and flax, but wool and flax were the ordinary raw materials for homespun. The interruption of trade with Great Britain during the Revolution turned the attention of southerners to the production of cotton to promote the making of textiles; the legislatures of Virginia, South Carolina and Maryland encouraged its culture at this time. In the years that followed, because of the general decline in the cultivation of tobacco and the rising demand for raw cotton from the new English cotton mills and later from the factories of the North, a remarkable change took place in southern agriculture in the type of the chief crop and the expansion of the plantation areas. Eli Whitney's cotton gin of 1793 solved the mechanical problem of separating the seeds from the cotton, and the way was open for large-scale production. By 1800, about 35,000 bales were produced in the South, chiefly in South Carolina and Georgia. Soon the culture spread rapidly in central North Carolina and southeastern Virginia as far as soil and climatic conditions permitted, and into the fertile gulf regions. By 1835 more than a million bales were produced annually, and by that time cotton had become the principal southern crop and the largest single item of export from the country.



WHITNEY'S COTTON GIN

Drawn from the replica of the model Whitney made in 1792. New York Museum of Science and Industry

Methods of Agriculture

The methods of agriculture practiced at the end of the eighteenth century had not changed much from those of the late colonial period. There were some exceptions among a few gentlemen planters in the South, some ironmasters in the North, and a number of progressive farmers in all parts of the country, who tried to apply the agricultural knowledge obtained from Europe or were interested in experimenting. Implements and tools were primitive; wooden plows and harrows were in general use. Oxen or horses were used to plow and break up the ground. Seed was scattered by hand; the cultivation of the soil was accomplished with iron-shod wooden spades; reaping was done with the use of scythes and sickles. The grain to be threshed was beaten out with flails, or stamped on by oxen or horses. Both primitive subsistence farming found all over the country and the commercial farming of the plantation type exploited the soil, robbing it of its fertility and causing waste through erosion, as "land butchery" continued, almost everywhere. The abundance of virgin soil enabled the opening up of new fields and areas; therefore, little attention was paid to the care of land or to the intensive farming practiced in many parts of Europe. The process of wearing out lands by continual use, without fertilizing them or practicing crop rotation, was repeated over and over again, resulting in ruined areas.

Travelers from Europe, curious to observe American activities in the morning of the new Republic, wrote much about the general backwardness of American farming and ascribed the lack of progress to an ignorance of scientific farming as practiced in their home countries; to the conservativeness and lack of initiative of most American farmers, who were content to achieve nothing more than self-sufficiency for themselves and their families; to the vast extent of land in the New World, which encouraged wastefulness; to the problem of securing help, with the resulting expense of labor; to the difficulties of transportation all over the country; and to a lack of money, banking, and credit facilities, which might have enabled agrarians to expand their enterprises. Most of these contemporary writers neglected one of the most important reasons: the general lack of markets for farm products. With the exception of plantation crops, which were largely exported, and of the surpluses absorbed by nearby commercial towns, there were few markets for farm products at this time.

The Expansion of Specialized or Commercial Farming

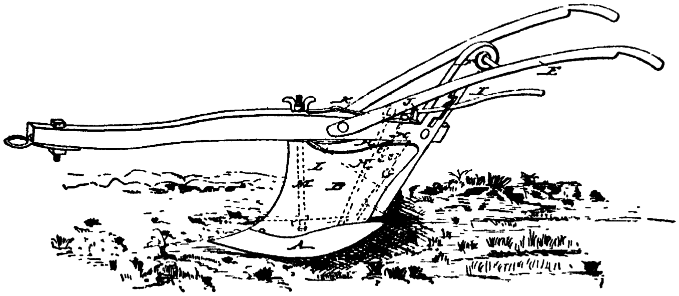
From the last decade of the eighteenth century, commercial farming began to expand. One of the reasons can be seen in the demand for products of all sorts from Europe because of the long wars that followed the French Revolution. As prices increased, farmers grew larger surpluses and many began to specialize in certain crops. But a more important reason for the expansion of commercial agriculture in the North was the growth of industrial urban centers during the early nineteenth century. The rise of factory towns removed from the farms many workers who then became dependent upon others for their food, clothes, and general needs. As a result, gradually-enlarging markets were provided for meat, grain, vegetables, dairy products, firewood, and other commodities. Around the growing urban centers, farmers specialized in market gardening, fruit growing, and dairy farming. Many regions in time became highly specialized. Wool growing expanded on New England hills; the raising of cattle increased in the Connecticut Valley and in central Massachusetts; regions in New York became noted for butter and cheese; and sections of the middle states specialized more and more in wheat farming and in the production of other cereals and hay.

Improvements in transportation aided and stimulated the movement toward specialization as crops and products could be more easily moved. But with the improvement of roads and waterways, the building of turnpikes and canals, the development of the steamboat and the railroad, specialization spread to the West. Western wheat, corn, pork, beef, and wool competed with the same eastern products. The Erie Canal inaugurated direct western competition with eastern production and a little later the trunk line railroads connecting the East and the West increased the competition. Many western regions became highly specialized. Cincinnati, the "Porkopolis" of the West, became the country's great packing center long before the Civil War, although western regions in Missouri and Illinois were also building up livestock and other farm industries, made possible by demands from the industrial and commercial centers of the East.

Improved Tools and Labor-Saving Machinery

As changes took place in specialization, improvements occurred in methods of farming, aided by better tools and by labor-saving machinery. By the end of the eighteenth century a number of gentlemen farmers and planters were busy with the problem of improving the plow. Thomas Jefferson, through mathematical calculations, attempted to change its shape for greater efficiency without increasing its weight and designed a mouldboard based on scientific principles. Washington, Webster and others were often concerned with improving agriculture. However, it was Charles Newbold, of New Jersey, who patented a cast iron plow in 1797. Although he spent a small fortune in attempting to market his invention, he was unsuccessful. Many farmers were prejudiced and maintained that solid iron plows would poison the soil and encourage weeds to grow, that the cost was too high, or that the plow, cast in one piece, was worthless if any part of it was broken. By the time that Jethro Wood of Scipio, New York, had patented his inventions, between 1814 and 1819, most of the prejudice against iron plows had disappeared, and, while the cost of his plow was relatively high, the mouldboard, share, and landslide were cast separately and the various parts were joined by lugs and interlocking pieces, making the replacement of any broken part simple and cheap. Within a decade or so, many designs of iron plows appeared, some imported from England and Scotland. But so successful was Wood that he was obliged to fight patent infringements until his death in 1834. By that time, improved iron plows were in general use in the East. As early as 1830, two works were built at Pittsburgh and produced thousands of the implements a year, and plow factories were established in New England, the middle states, the West, and elsewhere.

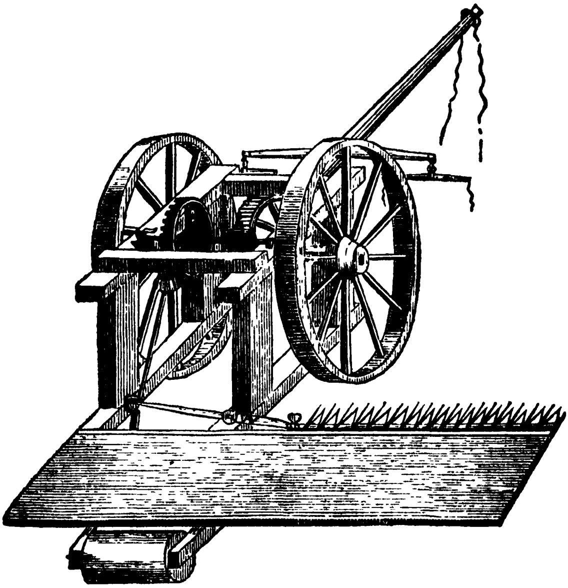
Among the many improvements of this period were those leading to plows made of steel. A steel-faced plow appeared as early as 1833, the invention of John Lane, but it was John Deere, Vermont-born blacksmith of Grand Detour, Illinois, who in 1837 invented a steel plow suitable for the heavy sun-baked soils of the western prairies. Ten years later he set up a factory in Moline, Illinois, and, in 1858, organized the family-controlled firm of Deere and Company, which became the largest producer of plows in the world and also manufactured other types of farm implements. In 1910, it absorbed six competing companies and continued its expansion.



From patent drawing by courtesy McCormick Historical Association

SIDE-HILL PLOW INVENTED BY CYRUS HALL McCORMICK

During the period before the Civil War many improvements were made in farm tools and implements of all sorts, including spades, hoes, hand rakes, mattocks, scythes and hay forks, and important steps were taken in producing labor-saving devices. Harvesting machinery first became practicable through the inventions of Cyrus Hall McCormick, in Virginia, and of Obed Hussey, a New Englander, who constructed a successful reaper in Cincinnati and obtained a patent in 1833, a year before McCormick received his, although it is probable that the latter's actual invention preceded Hussey's. But before this time, there had been forty-seven reaper patents, twenty-three of them American. The rivalry between McCormick and Hussey over patents and markets was long and bitter and led to much controversy and many court scenes. Hussey at first sold more machines than his competitor, especially in western New York, but they were heavy and subject to breakdowns, and in the long run he was defeated by his rival. Despite much advertising, McCormick did not sell his first reaper until 1840. His machine then proved to be superior, for it utilized all seven principles which have since been found essential to successful mechanical harvesting; the side draft, the knife, the divider, the fingers, the reel, the platform, and the wheel. As sales expanded, the horse-drawn reaper proved to be revolutionary, for with two men the McCormick machine could do ten times the work of two scythe or cradle harvesters. One of the factors that made for McCormick's success was his removal to Chicago in 1846, where he found a partner who paid $2,500 for a half interest. The reaper invaded the Middle West, made extensive wheat growing possible, and encouraged frontier migration. By 1856, more than 4,000 McCormick reapers a year were being sold, largely on the installment plan. By this time other improvements had been made, especially the self raker. When the inventor died in 1884, his son, Cyrus H. McCormick, succeeded him as head of the concern and as a power in the industry. When the International Harvester Company was formed in 1902, he became its president.



From a drawing in "Mechanic's Magazine," April, 1834

OBED HUSSEY'S REAPER, 1833

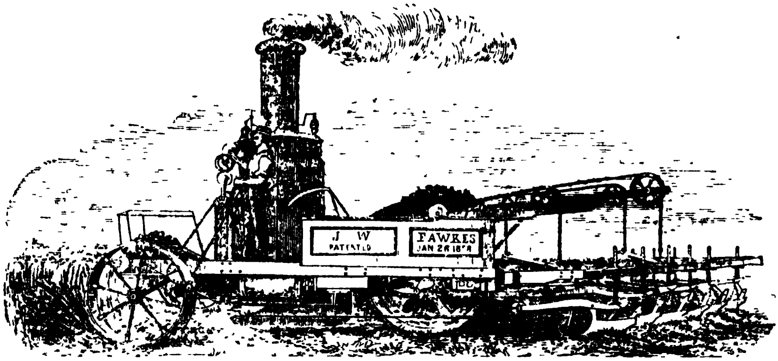
As late as 1840, almost all the hay produced in the United States was harvested with a scythe. The early reapers of McCormick and Hussey could be used as mowing machines by removing the platform at the rear of the cutter bar, but the hay had to be raked up after the machine had passed. The use of the reaper as a mower was not satisfactory for it could operate only on comparatively level fields and not on uneven pastures and uplands where hay was often grown. In 1856, Cyrus Wheeler patented a two-wheeled mower with a flexible cutter bar, permitting operation on rough and uneven ground. By 1860, a number of different types of mowing machines similar to modern mowers were on the market.

Early hand-driven threshing machines were imported from Scotland in the last part of the eighteenth century. In 1788, Andrew Meikle of Scotland patented a thresher and, before 1800, had added to it a separator and a fanning mill. Sometimes water power was used to operate his threshers, and sometimes horse treadmills. Such machines were too expensive and difficult of operation for the ordinary American farmer. But early in the nineteenth century, the cheap hand-driven fanning mill came into use on many farms. Beginning in the 1820's Jacob Pope marketed with much success a cheap hand-operated thresher. Then threshers appeared driven by horse power. In the decade prior to the mid-century, Wheeler and Melick as well as H. L. Emery and Company were the most popular distributors of small thresher-separators in the East, while Jerome I. Case turned out similar machines in Racine, Wisconsin. The first American machine to combine the three operations of threshing, separating and cleaning was built by John and Hiram Pitt of Winthrop, Maine. John Pitt estab-

After a painting by N. C. Wyeth

TESTING McCORMICK'S FIRST REAPER

lished a factory at Albany, New York, in 1849, which was moved later to Buffalo. Hiram Pitt began the manufacture of threshers in Alton, Illinois, in 1847, and four years later moved to Chicago. The manufacture of threshers tended to follow the extension of the wheat belt in the West. Since a thresher was expensive, farmers often cooperated in purchasing and operating it, moving it from one farm to another. In some places, enterprising entrepreneurs traveled from farm to farm at harvest time with their threshers and crews, doing the work for a fixed charge. Horse power was used for threshing long after the Civil War; steam tractors came into general use before the end of the century; and finally cheap portable gas engines took the place in many cases of horse and steam power.



From Emery's "Journal of Agriculture and Prairie Farmer," October 7, 1858

Fawkes' Steam Plow

Among other improvements was the seed drill. Although Jefferson had experimented with grain drills in the 1790's, mechanical seeding did not really develop until the Pennock brothers began their work in 1842. Corn planters, which required a different technique, were not highly successful until after the Civil War. Disk harrows appeared about this time, but Americans made few original contributions to the harrow. The horse-drawn rake was improved and hay-tedders, mechanical hay forks, and hay-balers were beginning to lighten the work of many farmers.

American machines were well known in Europe by the Civil War because they were relatively light, simple, and cheap. In European fairs, they were awarded many prizes. When the McCormick reaper was demonstrated at the London World's Fair of 1851, it was ridiculed at first. The London *Times* called it "a cross between Astley's chariot and a flying machine." But sentiment changed toward it in the field trial. So successful was the demonstration that the reaper was awarded the Council Medal; the *Times* apologized for its remarks; and the reaper had more visitors than the Koh-i-noor diamond at the fair. At the International Exposition at Paris in 1855, the American threshing machine entered by John and Hiram Pitt won first prize, and an American reaper cut an acre of oats in twenty-one minutes, which was one-third of the time of foreign entries. Europeans were beginning to recognize Yankee ingenuity and ability.

The introduction of labor-saving agricultural machinery marked the threshold of a new epoch in the history of man. It meant the beginning of an era of plenty if intelligence could be applied to its proper use and distribution. Earlier periods of history had experienced periodic famines and want partly because of crop failure and partly because of the inability of labor to provide surpluses that could be drawn upon in days of stress. The new machinery meant that there was no limit to production through inability to plant or harvest, and, as further progress was made, it became evident that an economy of plenty was about to displace an economy of scarcity. An equitable system of distribution is one of the many problems which still remain for man to solve before he can enjoy the benefits of the machine age.

The Beginning of Scientific Farming

Eighteenth-century England saw a real movement in the direction of scientific farming. By the middle of that century many important Englishmen became interested in improving agriculture. Jethro Tull, an Oxford graduate, toured Europe studying agricultural practices and returned to England to experiment. In his work and achievements, he stressed the importance of double-plowing, the seed-drill, improved planting, frequent hoeing and cultivating, and the value of clover and turnips as a substitute for fallow. Others carried on his experiments, including Lord Townshend, nicknamed "Turnip Townshend," who showed through experimentation on his estate that root crops like turnips would restore the fertility of a field by replacing the lost nitrogen and obviating the necessity of leaving it fallow. He urged the spreading of barnyard dungs on fields and advocated the use of lime and marl. Coke of Holkam and George III, called at times "Farmer George," also made contributions to agriculture. However, it was Robert Bakewell who led the innovations in stock-breeding and whose ideas and labor did much to transform English sheep and cattle. To meet the growing demand for food, he produced, by constant crossbreeding and inbreeding, larger and fatter types that yielded more mutton and beef. As a result the average weight of English sheep and cattle more than doubled during his lifetime. The many improvements and changes in English farming during this period have been called by some writers the agricultural revolution.

The transformation in English agriculture was noted by some American planters and farmers, who kept in touch with England by travel or through correspondence with relatives and friends. But even by the end of the century only a few attempts had been made to apply agrarian principles that had been proved and accepted in England. Washington, Jefferson, Webster, and others discussed the new methods and applied them to some extent. But the mass of American farmers paid little attention to them until the nineteenth century.

With the expansion of intensive commercial farming, increase in markets, development of machinery, improvement in transportation, and rise of agricultural societies, more and more attention was paid to scientific farming. During the eighteenth century, in many places along the seacoast, fish and seaweed had been applied by a few farmers directly to the land. Ground gypsum, marl, and limestone, crushed or burned, had been used as correctors of soil acidity. There were limekilns on the farmsteads of many Germans, especially in Pennsylvania. But improved agricultural practices were not general. In the early nineteenth century, partly as a result of the increasing price of land in older sections of the country and partly because of the rising scientific spirit which was affecting some farmers, such fertilizers as barnyard manures, rockweed, fish, and guano came into increasing use. The earliest form of commercial fertilizer to be widely used was Peruvian guano. The production and application of such commercial fertilizers in America dates from about 1840 with the work of Liebig, Lawes, and Gilbert, whose findings aroused much popular interest, but their discoveries were often exploited by quacks and imposters, many of whom styled themselves as "professors." Chemists in early agricultural schools and colleges gave attention and publicity to fertilizer analysis and experiments, although their contributions, especially in the new state colleges, became more important after the Civil War. The use of gypsum, lime, and marl also increased after the beginning of the nineteenth century. Gypsum or "land plaster" first came from Nova Scotia, but during the War of 1812 large deposits were opened up in the state of New York, reducing the price and giving this material publicity as a corrector of soil acidity. Marl, composed of clay mixed with calcium carbonate, valuable for soils deficient in lime, was extensively used in the East and especially New Jersey, where large deposits were found. Edmund Ruffin of Virginia, an outstanding agricultural leader, was an enthusiast for marling and, in 1821, published his *Essay on Calcareous Manures,* which went through many editions.

Closely related to the use of fertilizers, gypsum, lime, and marl, in improvement of the soil, was crop rotation. Washington had adopted a system of rotation of crops at Mount Vernon, growing wheat, corn, clover, and oats, as well as tobacco, which had proved destructive to the land. German and other progressive farmers in the North had also given some attention to the rotation of crops long before 1800. But it was in the nineteenth century, with the broadening of markets, the rise of agricultural societies, and the beginning of an agricultural press that farmers in increasing numbers began to treat crop rotation in a serious manner. There appeared a system of rotating corn, barley or oats, wheat and clover in various modifications, which gradually spread over most parts of the country.

More attention, also, came to be devoted to the improvement of cattle, especially after 1820. The best English breeds were imported, such as Herefords, Jerseys, Guernseys and Durhams. Interest increased in producing superior breeds by crossing the new importations with the more common cattle of the United States, although many wealthy owners built up herds of pure-blooded stock. The results of cross-breeding in time became evident as cattle increased in size, the quality of beef improved, and the yield of milk grew larger. There developed a differentiation between beef cattle and dairy cows, which met with great success in the East, but little progress was made at this time in the West. Better management, improved stabling, and more scientific feeding, as well as better breeding and selection, brought desirable results by 1860.

The first decades of the nineteenth century witnessed improvements in sheep-breeding, for American sheep were small and not very productive of wool compared with European flocks. The introduction of the fine-wooled white merino sheep with the exclusion of English breeds from the American market during the period of the embargo, the Non-intercourse Act, and the War of 1812, brought about important changes. About 1800, the first real attempts were made to improve the native stock by importing merino rams and ewes from France and Spain. These sheep had been bred in Spain for centuries to a high degree of perfection and when Napoleon's armies invaded that country, Spanish restrictions on exportation of merinos came to an end. As woolen factories were built in increasing numbers in the United States, the demand for the fine wool grew larger and a merino craze followed. Between 1809 and 1811 more than 24,000 merino sheep entered the United States and the demand did not die down until after the War of 1812. It was followed in the early 1820's by large importations of Saxony sheep. New Leicester rams were also imported for crossing with American breeds in order to develop better mutton types. In the next decade wool growing in the East reached its height, for 60 per cent of American sheep were in New England and the middle states. After 1840, greater demands for meat, westward migration, improved transportation and an increase in the price of foodstuffs caused the center of sheep-raising to move westward to the Ohio Valley.

Striking improvements took place also in the breeding of swine. In 1800, farms all over the country raised at least a few hogs. By 1860, common varieties known as the "razorback," "alligator," "hazelnut splitter," and "prairie rooter" had been crossed with better breeds, with resulting improvements. Breeds such as Poland China, Berkshire, Suffolk, Essex, Chester County White, and Byfield could be found on the best farms. After the Erie Canal was opened western corn-fed pork displaced to a great extent the eastern product, fed on swill, mash, and skim milk. Hog-raising followed the corn belt in its westward extension as farmers found that it was very profitable to send their corn to market in the form of hogs. Pork packing increased in importance in the West. Cincinnati was the chief center of the pork packing industry before the Civil War; then Chicago became the leading city of the industry.

By the middle of the nineteenth century, the sturdy ox was being largely displaced as a draft animal by the horse and mule, especially in the East. Fine race, show, and farm horses had been bred during the colonial period by the Narragansett planters, and on many other northern farms and southern plantations. But for draft work and as long as implements were crude and heavy, oxen were generally preferred since they were strong and docile, and although tough and stringy, could be used for food when working days were over. The requirements of the new machinery and the needs of increased production doomed the ox as far as farm work was concerned. Among the best draft horses in 1850 were those of the Conestoga breed, descendants of large Flemish horses. By this time the Percheron was being imported from Europe and for a time was a popular type. After the Civil War, Belgian, Clydesdale and Shire breeds appeared on the American market.

The mule, like the horse, was introduced to the American continent by the early Spaniards. After the American Revolution, Washington produced mules from stock he received from the king of Spain and from Lafayette. These found favor with his fellow planters. Henry Clay and other leading stockmen in Kentucky imported asses and bred mules. The mule was especially adapted to plantation economy and quickly came into general use in the South. Prior to 1860, the main source of supply was the Ohio Valley, but later the southern and Mississippi states, especially Missouri, became important in mule-breeding. During the Civil War, mules were used extensively for supply trains and from that time the "army mule" became proverbial. General classification of mules included plantation, heavy draft, mine, and farm animals.

The Rise of Agricultural Societies

The organization of agricultural societies aided the progress of American agriculture. The depressed conditions after the Revolution and the desire to establish economic as well as political independence led to the forming of societies, which through meetings, premiums, and publications sought to stimulate improvement. The establishment, in 1785, of the Philadelphia Society for Promoting Agriculture, whose members included Washington and Franklin, and the Agricultural Society of South Carolina was followed by the organization of many similar societies in Maine (1787), New York (1791), Massachusetts (1792), and Connecticut (1792). These pioneer agricultural organizations were composed largely of "gentlemen farmers," professional men, and business men. They were "literary" or "learned" societies, which published accounts of the best practices abroad and the results of agrarian experiments at home, and offered premiums and prizes for improvement in agriculture. Unfortunately, they did not reach the ordinary "dirt farmer," for their suggestions fell dead upon those who rejected "book learning" as useless, although for decades American farmers had followed the almanac, the most universally-read publication next to the Bible in the farm home. The almanac recorded astronomical data, rules for planting and regulating farm activity according to the various phases of the moon, occasional verse, anecdotes, riddles, "cures," recipes, and interesting bits of general information.

The first permanent fair association in the United States, which became the model for the popular type of agricultural society, was the Berkshire Agricultural Society. In 1807, Elkanah Watson, called "the father of the agricultural fair in America," exhibited two merino sheep in the public square at Pittsfield, Massachusetts, and three years later twenty-six neighbors joined him in an exhibition on the village green. This led to the organization, in 1811, of the Berkshire Agricultural Society, consisting largely of Pittsfield farmers. The activities of the new society gradually increased at the time each annual fair or exhibition was held to include a parade, plowing matches, a public meeting opened by prayer and characterized by addresses and songs, and an agricultural ball at the close. The new type of society in contrast to the older "literary" agricultural organizations spread rapidly. By 1819, Watson estimated that 100 existed in the United States and for a few years continued to increase due to the allotments of state funds to county organizations. Between 1825 and 1840, when state funds were withdrawn, many societies disappeared. After 1840 a revival took place and hundreds of new local, county and state societies were formed. In 1858, the Commissioner of Patents listed 912 county and state societies, five-sixths of which were organized after 1849. Many of the state societies began to exercise an influence on legislation. A national organization appeared when the United States Agricultural Society was formed in 1852. This society influenced the creation of a federal Department of Agriculture in 1862.

The agricultural societies played an important part in improving farm conditions and also in bettering relationships among farmers. The fairs sponsored by them were different from the eighteenth century borough fairs, which had been held for the purpose of buying and selling and were carried on somewhat after the pattern of medieval fairs. The county fairs of the nineteenth century stimulated the improvement of livestock, farm products, tools and machinery by offering prizes for the best. Methods of scientific farming generally were encouraged by exhibition, demonstration, addresses, and pamphlets. The annual gatherings also did much to make the farmer a more social individual by bringing him into contact with others in his community.

The Beginning of the Agricultural Press

American farmers at the beginning of the nineteenth century were not especially given to reading, except the sacred Bible and the venerated farm almanac. In 1831, the editor of *The American Farmer* said that the farmers "will neither take an agricultural paper, read it when given to them, nor believe in its contents if by chance they can hear it read." He estimated that not one farmer in fifty subscribed regularly to a farm paper. Yet between 1820 and 1860 the American agricultural press experienced a rapid mushroom growth. More than 400 different periodicals devoted primarily to agriculture and its related interests appeared during this period. On the eve of the Civil War the number stood at less than 100, but they were being distributed to more than 250,000 subscribers. *The American Farmer, The New England Farmer, The Prairie Farmer,* and *The Southern Planter* were representative of various sections of the country. The farm periodicals mirrored in some detail the life of rural America at a time when the nation was awakening to the glories of democracy, and when the country was young and vigorous as economic life expanded apparently without limit. The best papers contained accounts of the agricultural fairs; technical articles, including discussions of drainage, plowing, fertilizers, crop rotation, improvement of livestock, and new machinery; advertising, not only of farm supplies, but also of patent medicines, hair restorers, and instruments for discovering gold, silver, platinum, coal, iron, copper, and other valuable metals and minerals; special features such as articles for children and young men, and educational articles on chemistry, physics, electricity, travel, nature, and history; ladies' departments which stressed cooking recipes, the care of children, advice about choosing a husband, and propaganda for reform; puzzles, conundrums and stunts; and rural poetry such as "The Milk-Maid's Song," "The Hen Fever," "Sabbath in the Country," and other poetic "effusions" to nourish those who craved the "delight of melancholia." The journals remain a rich depository of the economic and social history of the period.

Books on agriculture also appeared in increasing numbers. Among these were Jesse Buel's *The Farmer's Companion* (1839), composed largely of material from English works and extracts from the *Cultivator,* of which Buel was editor; Edmund Ruffin's *Essay on Calcareous Manures,* published first in 1821, which eventually ran through five editions, and by 1852 totaled 493 pages; John J. Thomas' *The Fruit Culturalist* (1846), which was enlarged into *The American Fruit Culturist* (1849), the information systematized and illustrated; and Henry Colman's *European Agriculture and Rural Economy from Personal Observation* (1844) and other works, based on his investigations in Europe. Books on chemistry also appeared, especially after the American edition of Justus von Liebig's *Chemistry in Its Application to Agriculture and Physiology* (1841), which stressed the idea that constituents lacking in the soil could be furnished through the application of mineral manures.

In spite of the advances made in agriculture, especially the beginnings of a scientific approach and the development of a farm literature, most American farmers remained superstitious, preparing the soil and doing their planting "according to the moon." Editors and scientists attacked the age-old superstition, yet farmers continued to adhere to it. Not only were planting and harvesting done when the moon was auspicious, but dependence upon the phases of the moon was a factor in the killing of hogs, the roofing of houses, and the weaning of children. The idea of the transmutation of wheat to chess (a noxious grass) was another fallacy which was debated in periodicals at intervals over a period of forty years. The superstition, caution and skepticism of farmers toward innovations and scientific farming retarded progress, although the changes which took place between 1800 and 1860 were revolutionary and laid the basis for a new type of agriculture that was to develop in the machine age.

Government Aid to Agriculture

A plan for a board of agriculture was made as early as 1776 when resolutions were introduced into the Second Continental Congress designed to aid agriculture. One contained a clause creating a standing committee to "correspond with and assist" the agricultural societies proposed for each of the colonies. The clause, however, was struck out and the plan abandoned. Twenty years later, President Washington recommended to Congress the establishment of a federal board of agriculture to encourage agrarian improvement and to collect and diffuse information. No action was taken and although the question came up from time to time, many decades passed before any plans were worked out by the government in the interests of the farmers of the country.

In 1836, the Commissioner of Patents, Henry L. Ellsworth, assumed the responsibility for distributing among farmers seeds obtained from abroad, and three years later his work received official recognition when Congress appropriated $1,000 for "collecting and distributing seeds, prosecuting agricultural investigations, and procuring agricultural statistics." The appropriations were granted irregularly until 1847 when they were made annually thereafter. The amount appropriated by Congress in 1856 reached $105,000. In 1854, the work received a scientific emphasis when a chemist, a botanist and an entomologist were added to the agricultural division of the Patent Office.

The influence of agricultural societies, particularly the United States Agricultural Society, and the need for increased production during the war were partly responsible for the creation of the Department of Agriculture in 1862. The Republican Party, indebted to the agricultural West for the victory of 1860, was pledged to aid the farmers. In his first message to Congress, President Lincoln asked for the establishment of an "agricultural and statistical bureau." The Department that was created was a compromise between the demands for an organization with Cabinet authority and those for a bureau within the Department of the Interior. The new Department of Agriculture was headed by a commissioner and between 1862 and 1889, when it received cabinet status, it passed through its formative period.

States also assisted agriculture. Such aid was not new, for bounties and premiums had been paid by colonial assemblies to encourage the production of certain farm commodities. In 1792 and during the years that followed, the Society for Promoting Agriculture in Massachusetts received grants from the legislature. When the new type of agricultural societies appeared in the nineteenth century, financial aid was given by many states. Beginning with New Hampshire in 1817 and Massachusetts and New York in 1819, small sums were given to local and state societies. Between 1819 and 1845, Massachusetts paid $115,800 to such groups. State boards were also set up in many states, made up at first of the presidents of agricultural societies or their representatives. A few states encouraged the production of certain crops. Massachusetts, for instance, tried to stimulate the growing of wheat by paying bounties, but the results were not very successful.

The demands of agricultural societies and the farm press for state aid came to fruition after 1835 as appropriations increased and plans were made for agricultural and geological surveys. A demand arose also for financial aid to agricultural education. From 1823 when Jesse Buel introduced the first bill to establish an agricultural college in the state of New York, such agitation continued in increasing crescendo. Private schools, such as the Gardiner Lyceum at Gardiner, Maine, the first exclusively agricultural school in the United States (1822), were beginning to appear. But private institutions received no government aid. At last, when in 1837 a state university was authorized in Michigan, instruction in agriculture was specified in the act, but because of lack of funds, such instruction was not furnished for many years. In 1855, an agricultural college was established in Michigan separate from the university, and it began to function two years later. In the meantime, after years of struggle, the New York State Agricultural College was established by law (1853). Maryland endowed an agricultural college in 1856 and the next year Pennsylvania appropriated $24,000 to match an equal sum raised by private subscription for an agricultural college which in time blossomed into Pennsylvania State College. The inadequacy of state support for agricultural education, however, led to the plan of federal aid through the Morrill Act of 1862.

CHAPTER XII

Commerce and Trade

The Rise of American Foreign Commerce

One of the most difficult economic problems that independence brought was that of finding new markets, for the protection and advantages that the British navigation system had furnished were ended. The British colonies were in general officially closed to American vessels; the encouragement that American shipbuilding had enjoyed within the Empire no longer existed; and the protection that the British navy afforded against pirates and enemies had come to an end. But within a decade after independence, American commerce was thriving again and was beginning to expand. The efforts made by Americans to find new markets and ports for commerce and trade in the years following the Revolution were in time quite fruitful as Yankee sea captains and sailors scoured the Seven Seas; made contacts with Asia, the East Indies, Africa, and Europe; carried American products around the world; and returned home with new and exotic products from these distant lands.

One of the chief reasons for the movement for a stronger central government was the commercial difficulties of the period, as England refused to make a commercial treaty, and the sovereign states wrangled over discriminatory tariffs, making a uniform navigation policy impossible. When the new government went into effect in 1789, Congress promptly began exercising its authority to give advantages to American shipping. The tariff law, passed at the very beginning of the life of Congress, was intended to raise revenue, and even to encourage and protect manufactures, but it also aided American shipping by granting a discount of 10 per cent of the duties on imports brought to the United States in vessels built and owned by Americans. To encourage direct trade with the Far East, American vessels carrying tea were required to pay much less duty than foreign vessels, and relatively high duties were imposed on tea brought from Europe in the vessels of any country, a blow directed principally at the British East India Company. Another act of Congress passed at this time gave American-built and American-owned vessels a decided advantage in low tonnage duties, whereas foreign vessels were required to pay high tonnage rates on entering American ports. To permit a monopoly of coastwise trade, American vessels engaged in home commerce paid tonnage duties only once a year, while foreign ships in the American coastal trade had to pay at each entry. In 1790, an act regulating the employment and activities of seamen provided the basis for a policy satisfactory enough to remain in force until the changes made by the La Follette Act of 1915.

Many factors contributed to the rise of American foreign commerce during the early years of the Republic. The background for the prosperity that followed is found in the commercial activities of the period of Confederation: the early shipping legislation of Congress under the Constitution; the expansion of industrial life; Hamilton's financial policies in establishing public credit; and the growth of specialized farming together with the increasing surpluses of farmers. But most important was the demand from Europe for American products, consisting chiefly of agricultural commodities and raw materials, as well as for American vessels to carry European goods. This demand came as a result of the European wars that followed the bloody French Revolution. The execution of Louis XVI early in 1793 was the signal for England to enter the war already begun by other European powers against France. The withdrawal of millions of Europeans from their farms or industrial pursuits in the years that followed brought shortages of commodities in Europe and resultant prosperity to America. The carrying trade of France and her allies was in large part taken over by American merchantmen and from time to time, royal governors of the British West Indies under special proclamations permitted a broad American trade with those islands. Not only were American vessels engaged in the carrying trade of England and France, but by 1800, about 92 per cent of all imports and exports to and from the United States were carried in American vessels — a contrast from the period, 1783–1789, when British vessels carried most American commerce as England furnished the large bulk of manufactured goods. The tonnage registered for foreign trade increased from 123,893 tons in 1789 to 981,017 tons in 1810.

Although the period to 1808 was one of increasing maritime prosperity, a number of difficulties had to be faced and solved. The young nation, at the beginning of its career under the Constitution, was almost drawn into the war over the question whether the United States should aid France on the basis of the treaties of 1778, under which France assisted the Americans in their struggle for independence. The sympathies of the United States were now divided between France and England. Jefferson and his followers favored France and, soon after the French Revolution, many Americans formed societies modeled after the French Jacobin clubs, wore the tri-colored cockade, and also showed their loyalty to France by marching in parades and holding mass meetings. Hamilton and his followers were hostile to the revolutionists, and sided with England but held their peace. When England declared war on France in 1793, Washington consulted his cabinet, and decided on a policy of strict neutrality. Hamilton maintained that the French treaties were no longer in effect since the governments that had made them — both American and French — no longer existed. Jefferson believed that the treaties were made between the peoples of the two countries and were therefore in effect, but he had no desire to get into the war. Washington issued his famous Proclamation of Neutrality (1793) — a landmark in the development of international law and neutral rights — which stated that the United States would "adopt and pursue a conduct friendly and impartial toward the belligerent powers," and warned Americans against aiding any of the belligerent powers. The word neutrality was avoided out of deference to Jefferson and in the hope that Great Britain would note its absence and grant maritime concessions to the United States to keep it neutral. The proclamation was enacted into law by Congress in 1794, setting the American precedent for neutrality.

As prosperity came, difficulties also arose with England. Contrary to the provisions of the treaty of 1783, Great Britain still held the posts in the northwestern parts of the United States in order to guard the fur trade and also to retain control of the Indian tribes, her allies during the Revolution. England had likewise failed to grant compensation for slaves carried away during the Revolution. In addition, the requests for opening of British West Indian and other colonial ports to American vessels had met with failure and the boundary in the north was uncertain because of the vagueness and errors in the treaty that brought independence. New problems had arisen as American vessels engaged in the carrying trade for France were captured and Americans were seized on the high seas and impressed into the British navy. On the other hand, prewar debts had not been paid to British merchants and no steps had been taken to reimburse Loyalists for their confiscated estates. John Jay was sent to negotiate a treaty which averted the danger of war between the two nations but which contained features very unsatisfactory to most Americans. Under the terms of the Jay treaty the English promised to evacuate the northwestern posts, which they did in 1796. A mixed commission was created to adjudicate American shipping losses in return for certain maritime measures for the duration of the war. By 1802, more than $10,000,000 had been paid, but England did not repudiate the capture of vessels, which continued throughout the period. The Jay treaty also provided that the United States would guarantee the payment of the pre-Revolutionary debts owed by Americans to British merchants, the amount to be worked out by a commission. Settlement was made in 1802 when the United States government agreed to pay £600,000, which was really only a part of the claims. Two commissions were set up to consider the boundary questions. In regard to West Indian trade, a clause provided that American ships of a burden less than seventy tons could trade with the British West Indies, but on condition that the vessels would not carry molasses, sugar, coffee, cocoa, or cotton to any ports other than American. The Senate struck out this clause as insulting and ignominious. No provision was made in the treaty regarding the impressment of American seamen or payment for the slaves carried to England during the Revolution. The treaty was ratified by the Senate with difficulty and attempts were made in the House to block the necessary appropriations to carry it into effect. Many considered it a shameful treaty and Jay was severely and bitterly condemned. But Great Britain had granted some concessions in order to keep her best foreign customer and to insure American neutrality.

France objected to the Jay treaty and refused to receive American diplomats or representatives. France went further and began to capture an increasing number of American ships engaged in the British carrying trade. Hostilities broke out on the high seas between the two nations and vessels were attacked and captured by both sides. An undeclared war was waged with France for two years (1798–1800). Military preparations were made; the tiny navy was enlarged; privateers were commissioned; and seventy captured and condemned prizes yielded $700,000. Damages suffered by Americans ran into the millions. In 1800, Napoleon, planning a revival of a French colonial empire in the region of Louisiana, agreed to a "Convention of Peace, Commerce and Navigation." Its terms put an end to the treaties of 1778 in return for our relinquishing claims against France for the loss of American ships and cargoes, which then became claims of the shipowners against the government of the United States. The maritime principles of the treaties of 1778, including the principle, "free ships make free goods" and a most-favored-nation clause were continued. With this settlement, American commercial prosperity continued with few interruptions as Yankee vessels continued to engage in the carrying trade for England and France. But in spite of the Jay treaty and the Convention of 1800 with France, the neutral merchant marine of the United States was attacked and vessels were seized.

International Complications

The year 1805 was a most significant one. In Europe, it was distinguished by the French defeat at Trafalgar, which led to Napoleon's determination to starve Great Britain by blockades in an attempt to win the war. In the United States, it marked the beginnings of serious international complications, which were to lead first to measures of defense, to depression, and then to war with England.

Many American shipowners, in order to evade the Rule of 1756, a dictum of British prize courts enforced during the Seven Years' War that neutrals could not engage in a commerce during war time from which they were excluded in time of peace, worked out a policy whereby French colonial goods were taken to ports of the United States and re-exported as American goods. In the case of the *Polly* in 1802, during a brief interval of peace in the European wars, a British court decided that this practice — known as the "broken voyage" — was not a violation of the Rule of 1756. But in 1805, in the case of the *Essex,* the decision was reversed. The British court this time decided that such goods were subject to confiscation. Thus the doctrine of the broken voyage was discredited by England and an increasing number of American vessels was captured. Among other problems with England, the cause of much diplomatic dispute was the continued impressment of sailors from American vessels into the British navy on the grounds of indefeasible allegiance — "once an Englishman, always an Englishman." Regardless of protests, British men-of-war patrolled the American coast, even within the three mile international limit. On top of this came the Orders-in-Council declaring most of the coast of western Europe in a state of blockade. Napoleon's decrees, by which he tried to carry out his plan to isolate Great Britain and reduce it by starvation, also went into effect. He declared a blockade of Britain and closure of the continent to her trade. Thus neutral shipping was liable to seizure by either England or France. It meant that if the measures were even partially enforced, they would be destructive of American and other neutral commerce.

Failing to solve the maritime problems that confronted the country through diplomatic channels, President Jefferson suggested to Congress that an Embargo Act be passed, intended to bring the belligerent powers to terms through economic pressure. By means of a policy of "peaceable coercion," Jefferson believed that the economic boycott would bring England and France to terms within a short period of time because of their war needs. The law, passed late in 1807, closed American ports to all foreign commerce and prohibited the departure of American vessels to any foreign country. It permitted American coastwise commerce, but, as vessels took advantage of this liberty and sailed to foreign ports, a supplementary act required such vessels to give heavy bond that they would not violate the law.

The embargo failed in its objectives. After fourteen months, it was evident that the warring nations of Europe could continue their struggle without American help. In the United States, the results of the embargo soon became evident. While the law was grossly violated, it put an end to most American foreign commerce. Vessels were tied up in the great seaports of the country and thousands of seamen were thrown out of work. New England commerce suffered most, but some compensation was obtained in the stimulus given to manufactures as imports of foreign manufactured goods were cut off and commercial and merchant capital found its way into industry in the middle states as well as in New England. Coastwise trading kept up a semblance of commercial activity. The South suffered severely as its staples could not be exported abroad and depression spread over that region. Many of the vessels that illegally left port for France were ordered seized by the treacherous Napoleon on the ground that they could not lawfully leave the United States. Within a year vessels and cargoes valued at $10,000,000 were confiscated.

Before the passage of the Embargo Act and during the unprofitable boycott, New Englanders strenuously opposed it, for in spite of the diplomatic tangles over maritime questions and the loss of ships, profits were high. In Congress, the Federalists maintained that such a policy was unconstitutional, for they stressed that it was not the regulation of commerce, but its annihilation. In New England a few talked about secession which was even advocated at meetings and in pulpits. Timothy Dwight of Connecticut suggested secession in a series of sermons that he preached on the Biblical text: "Come out therefore from among them and be ye separate saith the Lord." An enforcement law, passed to prevent the evasions of the embargo, especially stirred many New England Federalists who objected to turning the United States navy "into a police squadron to assist in destroying American commerce." It is interesting to note that, by the time of the embargo, the Federalists and Republicans had reversed their stand on the question of the constructive powers of Congress under the Constitution.

In coercing foreign states, the embargo was ineffective. It affected adversely English industries but increased the British carrying trade and shipping. Toward the close of his administration Jefferson admitted the failure of the embargo to influence England and France to adopt more reasonable policies toward neutrals and asked Congress to repeal the measure. In its place a "Non-intercourse" Act was adopted opening commerce again with all the nations of the world except France and Great Britain and prohibiting all commercial intercourse with those two nations. Madison, who followed Jefferson, first attempted to solve the foreign problems that confronted him through diplomacy but he also failed. Then, like his predecessor, he turned to legislation. The Macon Act (1810) attempted to play England and France against each other for the benefit of the United States by permitting trade with all the countries of the world but providing that if either England or France should revoke its edicts, the United States would prohibit trade with the other. Napoleon accepted the terms immediately and commerce was cut off with Great Britain in spite of the objections of an infuriated minority in Congress, while England warned that France would not remove restrictions on American commerce or stay the capture of American vessels.

The War of 1812

The trend of events indicated that America's peace program had failed and the country appeared to be headed toward war. Several incidents aroused further hostility against Great Britain. In 1811 the withering broadside of the American frigate *President* in answer to a suspicious shot fired in the darkness by the British war vessel *Little Belt* off the Chesapeake coast brought joyous national emotion together with increased animosity to England. It also revived memories of the *Chesapeake-Leopard* incident of four years earlier, when the officers of the British vessel, seeking deserters off Hampton Roads, opened fire on the American *Chesapeake,* forced her to stop, boarded the ship, and seized several of her crew. Negotiations for reparations and a disavowal of the act were prolonged and this fact was stressed in 1811. National feeling was also aroused because of the belief that the British were actively inciting the Indians to hostilities against American settlers in the Northwest. That region held Great Britain responsible for the bloodshed at Tippecanoe and other places when William Henry Harrison fought the Indians under Tecumseh. The West demanded the expulsion of the British from Canada as the remedy for such troubles. Recent research has shown that there was little truth in the assertion that British officials had anything to do with the Indian uprisings. But events such as these created the psychological situation necessary for war.

President Madison called Congress together in November, 1811, and recommended that the country prepare for hostilities. The twelfth Congress which received the message included many younger men to whom the name "War Hawks" was given. They were chiefly from the South and West and resented the insults to national honor inflicted on the high seas and supposedly in the West. They were also ardent expansionists in a period when nationalism was broadening. They demanded the annexation of Canada and Spanish East and West Florida. After months of debate in Congress few steps were taken for adequate financial, military, or naval preparations. Yet President Madison sent Congress his war message on June 1, 1812. He stated that a declaration of war had been forced upon the United States and he reviewed the story of British aggressions upon neutral rights including the "continued practice of violating the American flag on the great highway of nations and of seizing and carrying off persons sailing under it," the hovering over and harassing the American coast, and the inauguration of sweeping blockades that could not be enforced. He insinuated that the British were responsible for "the warfare just renewed by the savages on one of our extensive frontiers." The declaration of war adopted by the House of Representatives was largely sectional, New York, New Jersey and New England casting seventeen votes for it and thirty-five against it, while the rest of the country cast sixty-two votes in favor of war and only fourteen for peace. Murmurs of secession were again heard in New England as opposition was expressed in various ways. The lack of preparation of every kind for such a war might have quickly resulted in a national calamity if it had not been for the fact that British power was concentrated in Europe as the British were engaged in a death struggle with Napoleon.

The war affected commerce immediately. Imports and exports dropped drastically. During hostilities, 515 letters of marque and reprisal were granted to Americans as all the seaboard states from Maine to Louisiana sent privateers to sea against England. They brought home 1,345 British prizes valued at almost $40,000,000 — to the consternation of British shipping interests and to the alarm of marine insurance companies forced to increase their rates. Aroused by these American successes on the high seas and by spectacular sea-duels on the oceans in which Americans were usually victorious, the British government tightened the blockade of American ports which had been planned late in 1812. Applied at first to the Chesapeake and Delaware Bays, it was gradually extended to include New York, Charleston, Port Royal, Savannah and the mouth of the Mississippi. Early in 1814 the entire eastern seaboard was blockaded including New England which had been exempt until this time because of pro-British sentiment in that area. So effective was the blockade that by the late summer of 1814 only rarely did a swift American vessel steal through it. Commerce came almost to a standstill. The carrying trade was ruined and exports for the entire year were less than $7,000,000. Even coastwise commerce felt the effect of the blockade. Shipowners, mercantile interests, and shippers were in distress; the destruction of exports was ruinous to planters and farmers; imports practically ceased except through a few favored New England ports; and government revenue from duties declined to a low level. The China trade and the whaling industry both suffered seriously. It is true that the cutting off of commerce, as during the embargo, encouraged the transfer of capital to manufacturing enterprises and woolen, cotton and iron production expanded. However, this did not offset the damages of war and the disasters to commerce, for economic ruin and governmental bankruptcy were averted only by the timely end of hostilities.

The war came to an end late in 1814, although two weeks after the peace treaty was signed, Andrew Jackson won a military victory at New Orleans over crack British troops recently released from the Napoleonic wars, the only brilliant military victory of the entire war. Both nations were war weary — England especially, after twenty years of continental warfare — and agreed to a peace on the basis of a return to the *status quo ante bellum* as to territory. Older problems regarding the Indians, disputed boundaries, the fisheries, and others, were to be decided later by commissions. The Treaty of Ghent secured none of the ends for which the United States went to war. The problems relating to impressments and interference with neutral trade and commerce were dropped because of the termination of the European struggle. Canada was not secured but British prestige among the Indians fell, putting an end to British interference with them, and also leaving them no ally to prevent American westward aggression and expansion. The campaigns of Andrew Jackson against the Creeks in the South and his invasion of Spanish Florida began a train of events which led in a few years to the acquisition of Florida. Thus, although the war was largely an inglorious one, and none of the objectives was achieved, it did accomplish a number of important things, not the least among these being the rise of a patriotic feeling which tended to draw and to bind Americans together into a closer national union.

Recovery and Expansion

Commercial recovery was rapid after the War of 1812 and by 1817 exports were again approaching $100,000,000. Imports were also increasing due in part to the British attempts to glut the American market and suppress the new factories. But late in 1818 foreign trade declined and remained in a poor condition for some time as the country suffered economic depression.

Immediately after the war, to encourage and aid commerce, Congress once again considered legislation in that field as it became evident that protection would have to be given American shipping now that the European wars were over. At the cessation of hostilities, it was clear that England and other countries would try to regain their lost carrying trade. In 1815, as a part of the movement toward national self-sufficiency which followed the war, an act of Congress provided that all discriminating duties imposed by earlier laws on the tonnage of foreign vessels or on their cargoes would be repealed in the case of any foreign nation which reciprocated. In 1817 a Navigation Act, similar in spirit to earlier British legislation, was adopted. It provided that all goods and commodities must be carried between American ports in vessels owned entirely by American citizens. This policy has remained unchanged. The law also prohibited the importation of goods from any foreign country except in American vessels or in the vessels of the country from which the goods came. Provision was made for the repeal of these restrictions if a foreign nation removed similar restraints on American vessels.

Until 1820, the number of treaties made by the United States was small. During the next forty years, the field and scope of treaty-making were greatly extended. Among the varied commercial subjects involved were neutral rights, release of shipping tolls, and consuls. Conventional relations of commerce and navigation came to be established with the nations of Europe, the rising republics of Latin America, and with other regions of the world. In time these agreements and treaties bore commercial fruit.

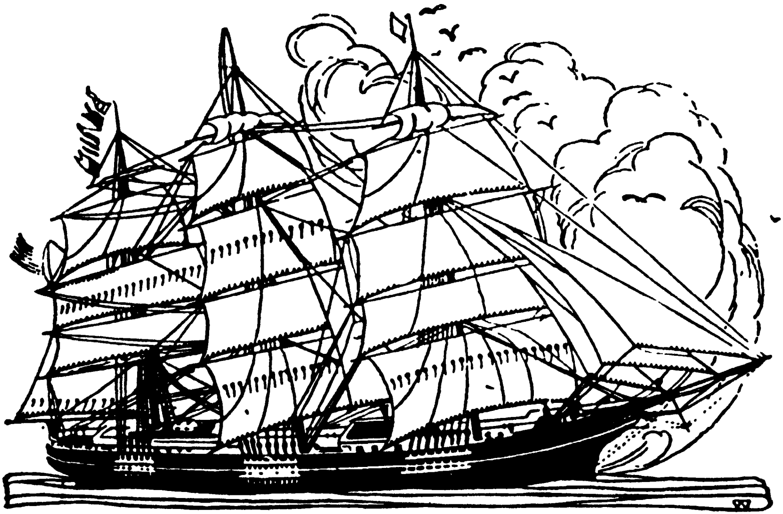
The decade, 1820–1830, was a flourishing one for American shipowners as the percentage of American goods carried in American vessels reached the peak of 92.5 (1826). But the amounts of foreign commerce, both imports and exports, did not increase proportionately with the growing population, dispersion of peoples westward, expansion of industry, and the increase of national wealth. During this period the packet or sailing liner as distinguished from the "regular trader" and the "tramp" came into use. The packets were privately owned vessels sailing on fixed dates between specified ports. The first packet line was the Black Ball Line of New York which began monthly service between New York and Liverpool in 1818. After a year or two, its packets sailed on weekly schedules. Among other lines that followed were the Red Star Line, and the Blue Swallowtail Line. By 1824, New York inaugurated packet service with London and Havre. Efforts of other Atlantic seaports to compete with New York by introducing packet lines did not meet with success as that city became the greatest seaport in the country. About the same time packet lines of full-rigged ships, brigs and schooners were established in the coastwise commerce, especially in connection with the shipment of cotton from southern ports to New York, to be reshipped abroad or to be distributed to the mills of the North.

During the decade of the 1830's foreign trade increased in both volume and quantity. Most of this increased trade was with Great Britain, France, and the countries of northern Europe. In 1830, the British West Indies were at last opened to American shipping, but relatively the trade with that area did not become as important as it had been during the colonial period. The panic of 1837 and the years that followed interfered to some extent with the growing overseas commerce, but that period was followed by one of great expansion. Between 1842 and 1860 imports and exports tripled and the tonnage of the United States engaged in the overseas trade increased almost fourfold. But in spite of this, the percentage of imports and exports carried in American vessels was declining as an increasing number of foreign vessels secured a greater share of the carrying trade. While American vessels carried 92 per cent of the imports and exports in 1807 and slightly more in 1826, the percentage in 1860 was only about 66. But the tremendous expansion of commercial activity brought much prosperity to the merchant marine while foreign commerce and shipbuilding increased. During this period, however, factors were at work that resulted in the decline of the American merchant marine, which began during the Civil War. At the same time, shipbuilding, which reached a peak in the fifties, also declined for reasons which will be discussed later.

The Age of the Clipper Ship

The period from 1842 to the Civil War has been called the age of the clipper ship. But the term "clipper" was applied to fast topsail schooners that were built in the Chesapeake region as early as the Revolutionary period. The Baltimore clipper of the early Republic was used effectively in privateering as well as in the peaceful pursuits of commerce. An advance was made in this type of speedy sailing vessel when the *Ann McKim* was launched in 1833. Characterized by three tall masts, ship-rigged with courses, topsails, topgallant sails, and royals on each, and drawing eleven feet of water forward and seventeen aft, its carrying capacity was relatively small, for it was built for speed. This vessel was a link between the Baltimore clippers and the great clippers that were built after 1842.

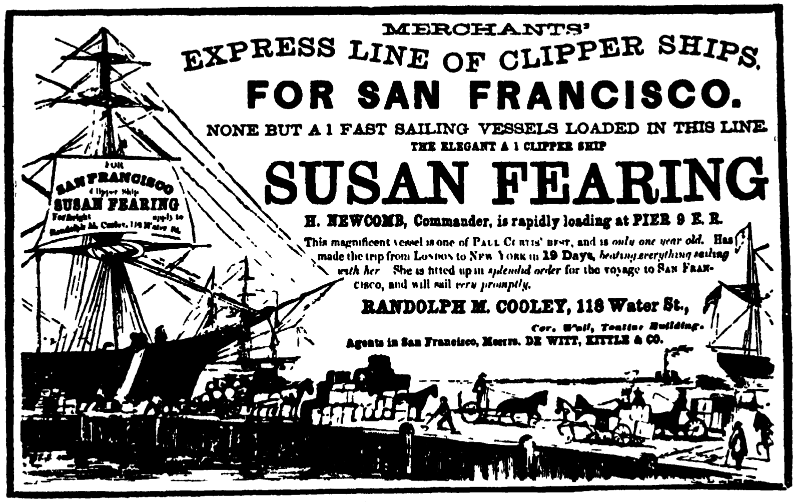
The remarkably long and narrow, wooden sailing vessels with broad and lofty expanse of sail that came to be known all over the world as American clipper ships, developed partly because of the demand for quicker transport of tea in the China trade. The discovery of gold in California gave an added impetus to their construction. Many vessels took cargoes and passengers to California and then would cross the Pacific to the Orient, returning with tea, silk and spices. These Valkyries of the sea, with their long narrow bows and tapering hulls, could travel faster than any other type of sailing vessel afloat. The names of many clipper ships — the *Flying Cloud,* the *Comet,* the *Andrew Jackson,* the *Flying Fish, Lightning* and the *Donald McKay,* named after one of the greatest of shipbuilders — were well known to Americans of the mid-nineteenth century, for races between clippers to the Orient and elsewhere, and the breaking of speed records, were given broad publicity and were the subjects of excited discussion.



Courtesy of the State Street Trust Co., Boston

CLIPPER SHIP

During the two decades before the Civil War, many factors aided the expansion of commerce. The victory of Great Britain over China in the Opium War of 1842 was shared by the United States. In 1844 Caleb Cushing made a treaty with the Chinese, permitting trade with several ports — not only Canton as heretofore — and granting other privileges. Trade expanded with the Hawaiian Islands especially after California was acquired and the Oregon question settled. Ports were opened up also in mysterious Japan after Commodore Perry sailed into the Bay of Yedo on his memorable voyages in 1853 and 1854 to demand from Japan humane treatment for American sailors whom



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the misfortunes of the sea cast on her shores. For twenty years the United States had attempted to prevent the maltreatment, and often death, of its sailors shipwrecked in Japanese waters while scouring the north Pacific in quest of whale. For more than two centuries the inhospitable Japanese had continued a national policy of seclusion and exclusion which prevented any contacts with them except through the Dutch trading station on the little island of Deshima in the harbor of Nagasaki. Examples of the "benefits" of western civilization presented to the Japanese when Perry forced his way into Japan included sewing machines, clocks, a telegraph instrument, a telescope, a model steam locomotive, and many other products of an industrialized culture, but it was the fear of the guns on Perry's battleships that helped to bring the first treaty between the two nations.

In addition to these factors that increased American commerce, the repeal of the corn laws, the ending of tariffs, and the removal of the entire navigation system by England, aided the American carrying trade. The Crimean War and the Sepoy Mutiny also benefited American shipping, when England for a time depended upon other maritime nations to transport much of her commerce. The gold rushes to California and Australia not only expanded shipping through the carrying of passengers and supplies to those regions but increased specie and enlarged the purchasing power of the United States and other countries, which in turn also stimulated economic development. The decade from 1850–1860 was one of intense activity in all aspects of American economic life and this productivity was reflected in increased imports and exports and in the expansion of shipping in all its aspects.

During the half century or more before 1860, agricultural commodities, including cotton, tobacco, wheat, corn and flour, as well as provisions and lumber, constituted the bulk of exports, comprising 80 to 85 per cent of the total. Tobacco maintained its lead in southern exports until 1803 when cotton surpassed it. Cotton became by far the most important of all American exports during this period. Fish, naval stores, furs and skins, which had been important American exports in the eighteenth century, now lost their relatively high position. Imports had always been so much greater in variety than exports and these relations did not change greatly between 1790 and 1860. Finished manufactures constituted more than 50 per cent of the total, although importations of raw materials and semi-finished products increased from 15 per cent in 1820 to 25 per cent in 1860, paralleling the growth of American manufactures. Sugar, coffee, tea, cigars, tobaccos and molasses constituted about 20 per cent of all imports. Luxuries made up the balance. Among imported manufactures, the textiles — wool, silk, cotton, and linen — held chief place and made up almost one-third of all imports in 1860. Iron and steel manufactures ranked next in importance. By 1860, trade with Europe accounted for three-fourths of the exports and three-fifths of the imports, although commercial relations were growing with Canada, South America and Asia. Trade with Africa was small, in fact almost negligible.

Decline of the Merchant Marine

The total tonnage of the American merchant marine, foreign and coastwise, expanded from 202,000 (gross) tons[1] in 1789 to 5,354,000 in 1860. From the Civil War it declined and did not recover until the twentieth century, although coastwise commerce tonnage grew at the expense of foreign. In 1860, tonnage engaged in foreign trade was

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[1] Gross tonnage refers to the space measurement of vessels, 100 cubic feet being called one ton.

2,379,000; in 1865, it was 1,518,000; and in 1900, 817,000. Not until the First World War did it surpass the peak of the nineteenth century. The remarkable rise of the merchant marine during the middle period of American history was due partly to Yankee initiative, enterprise and ingenuity and partly to the advantages American shipbuilders possessed over foreign competitors.

The foundations of the shipbuilding industry had been laid in colonial days and prosperity continued after a brief interruption during the transition from colonial to national status. The advantages of large supplies of excellent lumber at low prices together with a supply of skilled labor resulted in low construction costs and vessels were built not only for the American merchant marine, which was second only to that of England by 1793, but were sold throughout the world. As in the earlier period, shipbuilding yards were located largely along the North Atlantic coast, although many vessels were built for internal commerce on western rivers and a few ocean-going vessels were constructed as early as 1793 on the upper waters of the Ohio.

After the War of 1812, the reputation of Yankee shipbuilders became known everywhere and American-built vessels could be found in any important port of the world. Between 1815 and 1840, about 540,000 tons of shipping were sold to foreigners. From 1854 to 1859, Europeans bought 50,000 tons of shipping annually but, unfortunately, as American shipbuilding reached its height, factors were at work which doomed it and brought about its downfall and with it the decline of the American merchant marine.

One factor that led to the decline of American shipping was the great stress placed on sailing vessels and the refusal to experiment with ocean-going steamships. Although an ever-increasing number of steamboats plied the rivers and coastal waters of the country, Americans put their faith in wooden sailing vessels, especially the queenly clipper ships for long ocean voyages, and paid little attention to steam power for this purpose. England, however, lacking wood but possessing plenty of iron and coal, began to experiment with ocean-going, steam-driven iron vessels. While it was an American vessel named the *Savannah* that made the first ocean trip partly using steam power, few Americans believed that steam could ever be applied successfully to long sea journeys. The *Savannah,* under Moses Rogers, without passengers or freight — for few were willing to risk life, possessions, or freight on what seemed to be a fantastic voyage — left Savannah, Georgia, for Liverpool in 1819. During the trip, the engines with which the vessel was equipped furnished power only six times for a total of eighty hours; the vessel's sails were used for the rest of the voyage. The tremendous amount of wood necessary and the imperfections of the engines at that early date marked the experiment as a failure. English initiative and inventive genius, spurred by the disadvantages that Great Britain was under in building wooden sailing vessels, produced the first oceangoing steamships. In 1838, the 700-ton, 250 horse-power *Sirius* and the 1,340-ton, 450 horse-power *Great Western,* wooden side-paddlers, traveling entirely under steam power produced by coal, reached New York from Queenstown and Bristol respectively, the former in seventeen days and the latter in fifteen. Two years later, a Canadian, Samuel Cunard, with the aid of a British government mail subsidy, organized a steamship line of his own between Liverpool and Boston. Other companies followed. Britishers continued their experiments with steamships until they proved their superiority in speed over sailing vessels. Experiments with large iron vessels also proved successful when the *Great Britain* driven by a screw propeller was launched in 1843. Other steam-driven iron vessels followed and after 1870 ships of Bessemer steel were built. Following the Civil War, Americans, still faithful to the clipper, began to realize that their shipbuilders were yielding first place to the British and that the merchant marine of the United States was declining.

Another influence that contributed to the decline of the American merchant marine was the fact that Congress was tardy and ungenerous in aiding American companies, while Great Britain heavily subsidized such companies as the Peninsular and Oriental Company (1837) and the Pacific Steam Navigation Company (1840) as well as the Cunard Line and others. In 1845, Congress passed a subsidy act authorizing the Postmaster General to make mail contracts with the owners of American vessels, preferably steam. Because of southern opposition on constitutional grounds to a policy granting financial aid to shipping, Congress was not as liberal in this respect as the British Parliament. The Ocean Steamship Company operating between New York and Le Havre and Bremen did receive $200,000 a year for a time. The temporarily successful but ill-fated Collins Line, the American competitor of the Cunard Line, also received subsidies but failed during the panic of 1857. The policy of granting subventions was discontinued by Congress in 1858, although the decline of the American fleet after 1862 induced Congress to turn again to ocean mail payments as a means of keeping American vessels in the transoceanic trade. The competition with the heavily subsidized English companies tended to rob American shipowners of a part of their Atlantic, Pacific and South American trade.

In addition to these factors, others led to the decline of the merchant marine. As manufacturing, land speculation, canals, railroads, and mining developed and expanded, the competition for capital became keener. Thus a great amount of money that formerly found its way into commercial channels was now diverted to other ends. The underlying causes of the decline of the American merchant fleet go back long before the Civil War, but it was that conflict that brought out the weaknesses and started the decline. The destruction of much northern shipping by Confederate cruisers and the sale of many ships abroad to avoid loss began a long period of depression in American shipping and a reduction of the high prestige that once had been enjoyed by Yankee seamen and American shipbuilders.

The Coastwise Trade

The coastwise trade had been extremely important during the colonial period not only in the exchange of local products between colonial ports but also in distributing imports. In the period following independence, with the growth of the new nation and the increasing diversity of sectional production, coastwise shipping grew from 68,607 tons in 1789 to 2,644,867 tons in 1860. Manufactured goods, iron products, fish, ice, rum, boats, shoes, and other commodities were distributed among the northern ports and were exchanged for the cotton, rice, tobacco, and naval stores of the South, while surplus agricultural products, sugar, hemp and foodstuffs, as well as cotton from the Mississippi Valley, reached the Atlantic coast by way of New Orleans. Coastwise commerce grew to a greater volume than foreign trade. During the colonial period, the navigation acts restricted the coasting trade to British vessels, which, of course, included colonial vessels. During the Confederation, the states regulated navigation. At the time the federal union was formed in 1789 a prohibitive tax was placed on foreign built and owned ships and this was followed by their complete exclusion from the coastal trade under the Navigation Act of 1817.

After 1848, when California became a part of the United States, trade and commerce between the eastern and western coasts expanded tremendously. Commerce with the Orient and the whale fisheries grew. The discovery of gold in California greatly stimulated this trade and in 1849 about 700 vessels cleared for the west coast from various Atlantic ports. This trade at first was around Cape Horn, but within a few years some of it crossed the Isthmus of Panama where a railroad built by Americans was opened in 1855. Part of it also went overland across the Isthmus of Nicaragua. Vessels plied the waters from the Atlantic ports to Colon or Greytown and between Panama or Brito to Sacramento and other Pacific coast ports. Of course, the vessels used in the Pacific coastwise trade were ocean-going craft including the queenly clippers.

While the schooner was the typical American coasting vessel in the period prior to the Civil War, American steamboats made short coastwise voyages as early as 1809. The first regular lines, however, were not put into operation until about 1825 in the sheltered waters of Long Island Sound and between Boston and points along the coast of Maine. A line was established in the Gulf of Mexico by Charles Morgan in 1835, and in 1848 the United States Mail Steamship Company began operating its steamboats from New York to Charleston, South Carolina, New Orleans, Havana, and the Isthmus of Panama. Beginning at the time of the gold rush, the Pacific Mail Steamship Company opened a pioneer line from Panama to San Francisco and Oregon. After the Civil War, the railroads offered more serious competition and, as steamboats increasingly displaced sailing craft, many older lines were consolidated and in some cases the railroads gained control of old and new lines.

Internal Trade

During the early years of the Republic, when transportation was poor, internal trade, as in the preceding period, was largely local in character. Among the agencies of distribution, outside the cities with their stores and shops of all kinds as well as markets, the village general store which kept, sold and bartered an endless variety of provisions, goods and commodities was the most important. Throughout the period, the general store continued to be the typical retail distributor, although slowly some specialization took place in the sale and distribution of retail goods. In rural areas, the country store was a social center as well as a place for trading. Its business methods were primitive, simple, and almost changeless, for systematic systems of bookkeeping and stocktaking were almost unknown.

As in the late colonial period, the peddler was also an important agent of trade all over the older regions. As population moved westward, shrewd Yankee traders, transporting their commodities by pack on back, by carriage, by horse, or by boat, traveled the highways, turnpikes, roads, and trails from the East to the Mississippi and beyond and from Maine and other northern areas to the Gulf regions. Clocks, cheap watches, tinware, articles of brass and copper, pins, scissors, combs, buttons and a host of other Yankee notions made up the stock. Many grew wealthy and became city merchants or wholesalers. The peddler contributed much to building up American industries in such regions as the river valleys of Massachusetts and Connecticut as well as sections of New York and Pennsylvania. The consumers in rural areas were usually acquainted with the peddler and looked forward to his brief periodical visits. With improvements in transportation and communication, and the building up of communities, the old-time peddler declined in importance, although there were 16,594 in the United States in 1860. Since that period, he has been gradually transformed into the door-to-door salesman or agent.

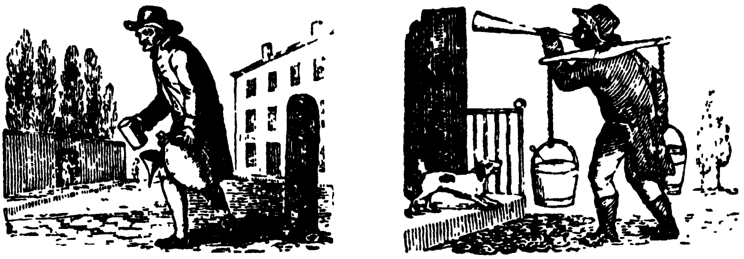
A Yankee Peddler

West of the Allegheny Mountains, each year from about 1800 to the Civil War, flatboats or "arks" descended the Ohio, Tennessee, Mississippi, and other western rivers, fitted out as store boats or trading boats. With an array of shelves and counters, they carried stocks of groceries, hardware, notions, and liquors and peddled their goods from wharf to wharf at plantations, villages, and hamlets. Blasts from a tin horn announced the arrival of the water merchant. After the boat was tied up, goods were sold or exchanged for farm products which in turn were disposed of in the larger cities or towns. The rise of the railroads was an important factor in bringing to an end the career of the floating stores, for, as the West became more densely populated, that region grew into one great market.

The wholesale centers of trade were at first confined to the cities along the seaboard, especially Boston, New York, Philadelphia, and Baltimore. During the first half of the nineteenth century, great trade centers grew up in the Ohio and Mississippi Valleys, in such cities as

Pittsburgh, Cincinnati, Louisville, St. Louis, and New Orleans. Wholesalers from the older East often opened branches in the rising western cities. Agents or factors of great merchants traveled to the newer regions in search of trade and played a part in developing new methods of marketing. These agents were important in distributing credit information among the wholesale merchants. Not until 1841, following the large number of business failures in the panic of 1837, was the first mercantile agency established in New York by Lewis Tappan who had accumulated a large amount of credit information for the wholesale firm of A. Tappan and Company. In 1859, it became R. G. Dun and Company. About ten years earlier, the Bradstreet Company was established by John M. Bradstreet, a Cincinnati lawyer. Other mercantile or credit-information agencies were started but few survived. In 1933, the firm of Dun and Bradstreet was formed.

MINT WATER. YEST.



" Mint-Wa-ter !" To toot—to toot—too too— East ! Here's East !"

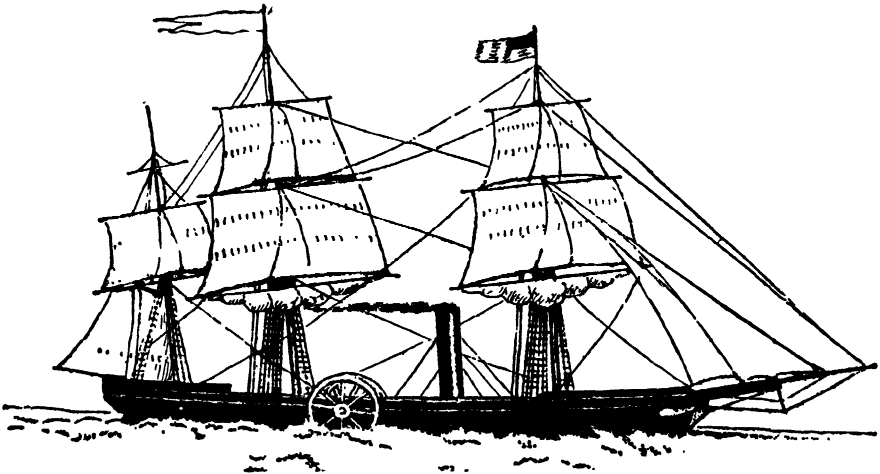
BUTTER-MILK. GRINDER.

" Butter-Mil-leck !" " Any Knives, Razors, or Scissors to Grind ?"

From the "New York Cries," by Samuel Wood, 1814

PREDECESSORS OF THE PUSHCART TRADERS

American internal trade was characterized by the successive opening of new areas. The Old Northwest, the Old Southwest, the Great Lakes region, the newer sections of the Mississippi Valley and the areas west of the Mississippi, including distant California and Oregon, were settled, providing new markets. On the plains of the southwest, a colorful trade developed between Missouri and the old Spanish — later Mexican — city of Santa Fé. Beginning with the expedition of William Becknell over the Santa Fé trail in 1821, caravans carried to that old, quaint city — established at the same time as Jamestown — cotton and woolen goods, cutlery, and Yankee notions. They returned with gold and silver coins and bullion, coarse Mexican blankets, beaver furs and mules. Despite occasional military protection, Indian attacks, robbery and death on the prairies, accompanied the rise of this trade. In the face of occasional confiscations, high duties, and mistreatment by Mexican officials, profits were usually high and, with a few interruptions when the trade was closed, it continued until after the Civil War. The completion of the last section of the railroad from Topeka to Santa Fé in 1880, however, ended the importance of the wagon road. In 1846, the value of merchandise transported to Santa Fé was estimated at $1,752,250. In twelve months of 1848–1849, 3,000 wagons, 12,000 persons and 50,000 animals traveled over the road, many journeying to California in the search for gold. After Santa Fé became American in 1848, large commercial houses were established there and the city became a center to supply merchandise to northern Mexico as well as to the rising regions of Arizona and New Mexico. Another center of trade in the far West was the Mormon settlement in the salt desert near Great Salt Lake (p. 199). In many sections of the Pacific area, the new mining settlements were opening up markets which were to play an important part in the economic development of the country in the years that followed.



THE AMERICAN STEAMSHIP *Savannah*

CHAPTER XIII

Banking and Finance

The Rise of Banking

The First Bank of the United States, with its main office in Philadelphia and eight branches scattered throughout the country, was an important economic factor in the early life of the Republic (p. 170). During the twenty years of its existence (1791–1811), it stimulated business, manufactures and commerce by providing capital and financial facilities; it served the government in a most satisfactory way by acting as its fiscal agent; and it exercised a wholesome, though not always welcomed, influence on the rising state banks, especially in regulating their note issues by refusing to accept bank notes not redeemable in specie. In fact, its power was a basic reason for hostility toward it. In spite of its good work and manifest advantages, its charter was not renewed. Personal hostility to Secretary of the Treasury Gallatin who recommended that its life be extended, political jealousies and dissensions, the question of constitutionality, and opposition to the large number of foreign stockholders, resulted in the defeat by a single vote in both House and Senate of a bill for a new charter. The bank wound up its affairs and eventually paid shareholders $434 for each share of stock held.

This period, when maritime problems brought the country to the verge of hostilities with England, was a most unfavorable one for changing the financial system of the country as there was no other adequate fiscal agent through which the government could carry on its financial operations. As the war began and the government found itself financially unprepared, it became more and more evident that a serious mistake had been made. In 1811, when the bank went out of existence, there were eighty-eight state banks; this number rose to 246 in 1816. Most states exercised little regulation over their banks, which enjoyed the right to issue bank notes with almost no restriction. By 1814, the expansion of bank note circulation, the disorders and depreciation of a large part of the currency, and the drain of specie to Europe including the export of $7,000,000 which had been invested by Europeans in the First Bank of the United States, compelled banking institutions to suspend specie payments except in New England, where methods were more conservative.

With much difficulty the government financed the War of 1812, which cost altogether about $113,000,000. The tariff was doubled to secure much needed revenue. Bonds and treasury notes of various varieties were issued. Direct taxes — apportioned among the states — were assessed for the first time in the history of the Republic, and, in spite of much opposition, internal revenue taxes were imposed in 1813 and were repealed late in 1817. The disorders of the currency made government financing very difficult. Before the war was over, proposals were made for a Second Bank of the United States and many who had opposed the First Bank now changed their views.

In 1814, on the recommendation of Secretary of the Treasury Alexander J. Dallas for a new central bank, Congress debated several proposed measures. Dallas pointed out the need for such an institution and stressed the necessity for it in rendering aid to the embarrassed treasury as well as in restoring a sane monetary system to the country. In 1815, a bank bill passed both Houses, but was vetoed by President Madison not on the grounds of its constitutionality but because he did not agree with all its provisions. The next year a bank bill, under the leadership of Calhoun, was introduced into Congress and was passed. It followed the ideas suggested earlier by Secretary Dallas. Although Clay had opposed a new charter for the First Bank of the United States, he now supported the measure. Leaving the Speaker's chair, he stated that he had been instructed by his state to vote against the recharter of the earlier bank, but that now the "force of circumstances and the light of experience" had changed his views and he was sure that the bank was needed. He agreed that Congress possessed the "constructive power" to charter it. Strangely enough, the Federalists in Congress, led by Webster, were opposed, but the measure became law in April, 1816. During its early life, the bank was mismanaged under its first president, William Jones, who retired in 1819. In the years that followed it was on the whole well managed through its main office and numerous branches.

Panic of 1819

While the Second Bank of the United States had been able to force state banks to resume specie payments and, to a certain extent, to adopt more conservative methods, it could not prevent the financial crisis of 1819. Many factors were responsible for that disaster. Years of overexpansion had encouraged speculation in land and commodities made possible by the overextension of bank credit. The contraction of state bank currency and of credit initiated by the Second Bank of the United States pricked the bubble of inflation and brought about the collapse of business as prices of commodities tumbled. Cotton, for example, fell 50 per cent. Contributory to the causes of the panic was the flood of foreign goods which deluged the country and with which American manufacturers had not been able to cope. The federal government also experienced financial difficulties as war taxes had been repealed before the depression began.

As financial distress increased and swept across the country, many banks suspended specie payments. The Second Bank of the United States was investigated by Congress and went through a process of financial rehabilitation. There was much distress everywhere as workers were thrown out of employment, banks became insolvent, businessmen were bankrupt, sheriffs' sales grew larger in number, and imprisonments for debt increased. Manufacturers held conventions and ascribed their distress to the need for adequate protection for home industry against the "cheap production, fraudulent invoices, long credit and unlimited sales at auction, whereby the country has been deluged with foreign merchandise." Petitions were sent to Congress asking for the abolition of credit on import duties and for increased protection on certain types of manufactures. But the bill of 1820, drafted while economic problems were still serious, failed. Debtors clamored for relief legislation, but without much success. The government did little except abolish the credit system as it applied to the sales of public lands. The depression was not quite so severe in New England as in other parts of the country because of a better banking and currency system, greatly diversified industries, and sea-faring activities. By 1821, the effects of the depression were wearing off as prosperity returned.

The Second Bank of the United States

The Second Bank of the United States was chartered for a period of twenty years. Its authorized capital stock was $35,000,000, one-fifth of which was subscribed by the federal government. Its management was vested in a board of twenty-five directors, one-fifth of whom were appointed by the President of the United States. Its powers were in many ways similar to those granted to the First United States Bank. It could issue bank notes up to the amount of its capital stock and was required to pay specie on demand for both notes and deposits with a penalty of 12 per cent for failure to do so. It became the fiscal agent for the government, looking after its deposits without paying interest and transferring public funds without charging commission. In return for its charter it was required to pay the government a bonus of $1,500,000.

The main office, as with the earlier bank, was in Philadelphia. Branches were established at Baltimore, New York, Boston and other cities in various parts of the country. Hostility to the bank appeared, especially during the financial crisis of 1819, when an unsuccessful attempt was made in Congress to revoke its charter. In several states, heavy taxes were imposed on the branches in the expectation of getting rid of them. The action of Maryland in this respect led to a famous case brought to the Supreme Court, McCulloch *vs.* Maryland (1819). In the decision, handed down by Chief Justice Marshall, the right of Congress to charter the bank was upheld and the law of Maryland, taxing the bank, was declared unconstitutional, for, Marshall pointed out, the power of a state to tax a creation of the federal government was equivalent to the power to destroy it. The western states, especially, opposed the decision. The *Kentucky Herald* commented: "This monster of iniquity is to be saddled upon us. We are to be taxed by a corporation unknown to the Constitution and known to us only by its oppressive and vindictive acts. . . . If the bank may tax us without our consent, . . . and if these branches are to be free from State taxation, we had better give up our Constitution and return to the condition of a Territory."[1]

A second case, similar in most respects, was decided by the Supreme Court in 1824. Branches of the bank had been established in Cincinnati and Chillicothe, Ohio. The legislature levied an annual tax of $50,000 on each branch. Since the bank refused to pay, a state official armed with a warrant entered the bank's vault at Chillicothe and seized funds amounting to the total of the tax. Suits were instituted by the bank and were taken through the courts. In 1824, the Supreme Court in the decision of Osborn *vs.* the Bank, following the lines of the earlier case, McCulloch *vs.* Maryland, pronounced Ohio's tax law unconstitutional and directed that the seized money be returned.

Under Langdon Cheves who became president of the bank in 1819 and Nicholas Biddle who succeeded him in 1823, the bank prospered. It stabilized the currency system and exerted a conservative influence on the entire banking structure of the country. But it did not possess the power to stem the rising tide of speculation as state banks increased greatly in number. During this period, its constitutional right to exist was challenged and its activities came to an end when its charter expired.

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[1] Quoted by J. B. McMaster, *History of the People of the United States* (New York, 1903), IV, 505.

When Andrew Jackson became President, he assailed the bank and raised the question of its constitutionality in his annual messages in spite of the Supreme Court decisions. He was motivated both by the belief that Biddle had opposed him in his election to the presidency and also by his distrust of banks. In a reply to a letter from Biddle who sought his views, Jackson stated that he was no economist or financier — which became more and more evident — but that he was afraid of all banks since he had read the history of the South Sea Bubble; he also questioned the right of Congress to charter a bank outside the District of Columbia. Jackson's public attacks on the bank led his enemies to make the recharter of the bank an issue in the campaign of 1832. Urged by Clay, Webster, McDuffie (chairman of the House Ways and Means Committee), and even by some Calhoun adherents, Biddle formally applied to Congress for a recharter when the old one expired in four years. The measure providing the bank with an extension of life for ten years passed both houses of Congress by small majorities. Those who opposed Jackson were sure that he would veto the measure thus providing an issue which they expected would defeat him in the next election.

As was anticipated, Jackson vetoed the bank bill and returned it to Congress with a vigorous veto message, intended to be a campaign document. Whether Jackson, Edward Livingston, or some one else wrote it, is of no concern here for it did express Jackson's views. He attempted to strike a popular chord when he emphasized that the bank was a monopoly, enjoying the special favor of government at the expense of the public. He stressed his belief that some of its powers and privileges were "unauthorized by the Constitution, subversive to the rights of the States, and dangerous to the liberties of the people." He rejected the finality of the opinion of the Supreme Court as to the constitutionality of the bank. He attempted to arouse national spirit against the bank by pointing out that foreigners held much of its stock, which in time of war would make it "an internal enemy." Finally, he appealed to the masses — for whom the document was really intended — by calling attention to the age-old conflict between despotic wealth and honest poverty and stressing the idea that: "Many of our rich men have not been content with equal protection and equal benefits, but have besought us to make them richer by act of Congress." Thus, the question of the extension of the life of the bank became a political issue in the campaign of 1832.

The re-election of Jackson and a majority of his followers to Congress sealed the doom of the Second Bank of the United States. Despite all that the opposition to Jackson, including Biddle, could do, the hero of New Orleans was still the idol of the masses and the blow directed at the bank was in harmony with the philosophy of the West. Biddle and his friends, however, refused to accept the verdict of the election as final, for to close up the business of the bank and its branches by 1836 would mean the calling in of a mass of loans and the withdrawal from circulation of much bank currency, as well as the removal of government deposits, which it was believed could not be done at once without causing disaster. Biddle, therefore, was still hopeful and believed that in order to avert this calamity, Congress would pass a bill extending the bank's charter even over the President's veto. But Jackson, fully aware of the situation, resolved to withdraw the government deposits gradually so that they could be finally suspended altogether without an economic shock and he believed that three years were sufficient for the bank to wind up its affairs without hurting the financial system of the country.

Although several committees of Congress had investigated the bank during the early years of Jackson's administration, the President in his message to Congress in December, 1832, asked for another investigation asserting that he believed the deposits were unsafe. In March, 1833, a House resolution was adopted, stating that the bank was sound. In spite of this, Jackson proceeded to "remove the deposits." After carefully selecting state banks ("pet" banks), he called his cabinet together, explained his purpose, and assumed responsibility for the removal policy. Since Secretary of the Treasury W. J. Duane, appointed for the purpose, refused to order the removal, he was dismissed by Jackson and replaced by Roger B. Taney, who carried out the President's wishes. The "removal of the deposits" consisted in ordering the fiscal agencies of the government not to deposit any more funds in the United States Bank. Government funds on deposit in the bank (about $6,000,000) were to be checked out gradually until no more remained. All new funds were to be deposited in the designated state banks. When Congress met in December, 1833, it received a large number of petitions from businessmen and others asking that the order be rescinded.

Jackson and Taney also reported their action to Congress, declaring that they believed the bank unsound. A bitter partisan fight followed between the friends of the bank and its enemies. All that resulted, however, was the adoption of resolutions of censure against Jackson and Taney in the Senate, and a few years later these were expunged from the record. Thus Jackson in his fight with the bank was completely victorious. It passed out of existence when its charter expired in 1836. Biddle obtained a state charter for the United States Bank of Pennsylvania, which continued until 1841 when it became insolvent during that period of business depression.

Panic of 1837

The Panic of 1837 was the most severe financial and industrial disturbance experienced up to that time. It was really a series of depressions and partial recoveries which continued until 1843. Its causes were complex. Over-speculation and over-expansion of credit — the basis of most depressions — were largely responsible. Land speculation in the West was one factor. In 1833, the sales of public lands amounted to $3,900,000; in 1836, it reached $24,800,000. Much of the money used in such speculation was borrowed, especially from "wild-cat banks," which were increasing rapidly in number. State debts also expanded as systems of internal improvements were projected and carried out. Canal building by private companies, the rise of railroads, and the expansion of industry rapidly increased the indebtedness of the country to a point beyond actual safety. The increasing use of luxuries by an ever-growing portion of the population was a contributory factor. Imports at this time came to surpass exports, which must be considered in probing the causes of the serious and extended depression. High protectionists found an important reason for the panic in the declining tariff — a debatable question, of course. While there were many complicated underlying causes, several events precipitated the crisis.

In 1834, after the Second Bank of the United States had received its mortal wound from Jackson, an attempt was made by the government to change from a paper to a gold currency as far as possible. The coinage acts of 1792 and 1793 made the ratio of gold and silver one to fifteen, but the market ratio of the two metals until 1833 had been about one to 15.6. This kept gold at a premium, with the result that it could not be kept in circulation. In 1834, therefore, the change in the ratio of coinage to one to sixteen encouraged the minting of gold. A new mint, with its machines operated by horsepower, was set up and every encouragement given to develop a coinage system. For example, an attempt was made to abolish small notes and to increase the silver circulation; collectors of customs and receivers of public money were required to accept only designated forms of currency. To aid the movement toward a coin currency, the President, in 1836, issued his famous Specie Circular which provided that only gold and silver should be accepted in payment for public land. This had the effect of curbing western land speculation and hastened the panic of 1837. About the same time (1836) Congress passed a law distributing the government surplus in installments among the states, which caused the depository banks to contract their credit at a crucial time. Another factor that aided in precipitating the panic was the financial crisis in England, including the failure of Wilkes, Wilde, and Wiggin, three English companies interested in American cotton and credit. British and other European creditors began to call their loans and to demand specie for their American securities. Still another adverse factor was the poor crops of 1835, 1836 and 1837, which unfortunately continued in 1838 in the midst of the depression. The crop failures lessened the purchasing power of the farmers and added to the problems of the times.

Evidences of the coming storm were experienced early in 1837. In May, the New York banks suspended specie payments and they were followed by the other banks of the country. Many banks failed and passed out of existence. All metallic currency disappeared and "notes and tickets" took the place of subsidiary coins. Many business and manufacturing firms issued their own currency, promises to pay at some future date. Industrial activities of all sorts slowed down as thousands of individuals and companies became bankrupt. Large numbers of factory workers, artisans and laborers were thrown out of work, and misery and poverty increased in the new industrial urban centers as well as in the older ones. Before the close of 1837 nine-tenths of the factories of the eastern states were closed at a time when flour and other food prices were rising because of poor crops. In New York, handbills were circulated and posted on buildings demanding: "Bread, Meat, Rent, Fuel — the prices must come down!" Riots occurred. Many starved to death in different parts of the country, for the government did not intervene to help feed the distressed, and charitable organizations were unable to cope entirely with the situation. The South and West as well as the East felt the stark hand of industrial depression as it gripped the entire country.

The federal government, too, soon found itself in serious difficulties. The surplus which was being distributed to the states now melted away like snow under a bright sun and the fourth installment was never paid. President Van Buren, fearful that the "pet banks" holding government funds would fail, asked Congress to provide an independent treasury system whereby government funds would be kept in vaults in the important cities of the country. In 1840, this was accomplished and government finances were divorced completely from the banking system for the time being. Congress was also forced to pass a Bankruptcy Act in 1841, providing for voluntary bankruptcy. Under its provisions, however, approximately 40,000 people were relieved of debts amounting to about $450,000,000. By the time that the act was passed the banknote circulation of the country was declining rapidly. In 1837, it stood at $149,000,000; in 1842, it had sunk to $59,000,000. State governments were in serious difficulties. Efforts were made to have Congress assume all state debts, but without success. During the depression, eight states and one territory defaulted interest payments on their bonds. Arkansas, Florida, Michigan and Mississippi repudiated bond issues in whole or in part. Foreign investors and American holders of the securities suffered. The panic affected individuals and groups all over the country, and recovery came very slowly and painfully.

The Independent Treasury System

The plan proposed by President Van Buren in 1837 for an independent government treasury was not entirely new, for Jefferson years before had proposed a plan whereby government officials would look after government moneys, and, in 1834, Representative William F. Gordon of Virginia proposed an independent treasury system as an amendment to a bill. In his message to Congress, Van Buren argued that since the government was well established financially there was no further need as there had been in the early years of the Republic to rely on banks. He avowed that state banks were unsafe depositories of public funds and that a national bank was also unsatisfactory. He pointed out that government funds in the hands of banks led to serious results through the overexpansion of credit and rash speculation. He recommended the separation of the "fiscal concerns of the government from those of individuals and corporations." Those who opposed the suggestion of Van Buren stressed the danger of a government bank, managed by public officials and under the control of the President. Stiff opposition arose from Whig leaders, including Clay and Webster, as well as from a large section of the Democratic party who objected to the restrictions upon state banks that such a system would bring. Not until 1840 did a measure pass, establishing a new system for looking after government funds.

The Independent Treasury or Sub-Treasury Act provided that government vaults be built at Washington and other leading cities where all public moneys should be kept and handled only through the United States Treasury Department and its fiscal agents. Government funds in the "pet banks" were withdrawn and the new system began operation — but not for long. As soon as the Whigs gained power for a brief period, the law establishing the independent treasury was repealed (1841), government funds were placed again in "pet" banks, and steps were taken to establish a third United States Bank. Had President Harrison lived, it is probable that this part of the Whig program would have been carried out. But "Old Tippecanoe" died a month after his inauguration and John Tyler of Virginia, who was really a states-rights Democrat, became President. As a result, the ambitious Whig program collapsed when he vetoed the bank measures.

The Whigs had drawn up a plan for creating a "Fiscal Bank of the United States," free from the old constitutional objections, for its home was to be the District of Columbia and branches could be established only with the consent of the states. Tyler vetoed the measure as unconstitutional. Congress drew up a new bill providing for a "Fiscal Corporation of the United States" and designed to overcome the objections of the President. Tyler, however, decided to assent to no bank bill whatsoever and returned it with his veto. With anger and contempt, the cabinet resigned, except Webster, Secretary of State, who remained long enough to complete negotiations with England regarding the northeast boundary and other problems. The Whigs issued a manifesto declaring their complete separation from the President as their brief period of control came to an end.

In 1846, with the Democrats again in control, the Independent Treasury was re-established. The new treasury building at Washington as well as the mint at Philadelphia and the branch mint at New Orleans were made places of deposit. Sub-treasuries were established at New York, Boston, Charleston, New Orleans, and St. Louis. As time went on additional depositories were established. The system was substantially changed by the National Currency Act of 1863 and the latter in turn by the Federal Reserve Act of 1913. Other changes have been made from time to time, the most recent under the Banking Acts of 1933 and 1935.

State Banking Systems

During the last years of the Second Bank of the United States, state banks grew like weeds. In 1829, there were 329 banks in the country; in 1837 there were 788. They issued countless notes, much of which became worthless. Such currency was widely used in speculation and was a factor in causing the panic of 1837. The collapse of many banks and the depreciation of bank shares during the years of depression brought misery and bankruptcy to many. Foreign investors also suffered heavily, for high interest rates had attracted many Europeans to the American financial market.

As the life of the Second Bank of the United States ended, the country as a whole entered a period of loose banking practices, although in a few sections sound systems were developed. In a number of states, banks were well regulated, but, in most, the absence of restrictions resulted in reckless banking. Wild-cat banking, of course, was not new for it flourished during the War of 1812. A product of the laissez-faire theory of not imposing restraints on business, the free banking of this period frequently meant the absence of control and the abolition of special privileges which certain banks enjoyed by virtue of special charters. In many western and southern states a bank could be established without capital and sometimes even without a place of business. All that was necessary in such cases was to deposit with a state treasurer stocks and bonds issued by states as security for notes that were authorized. Since a mass of state securities were depreciated and trashy, the bank notes issued often were in no way secure. Other banks were established with specie borrowed only long enough to show the banking commissioners or other officials that there was actual capital. Among the most serious banking abuses of the period were inadequate or ineffective supervision, the borrowing of capital to start a bank, the excessive note issues that were permitted, the lack of rigorous requirements for redeeming notes, the lack of uniformity of the notes which made counterfeiting easy and their real value dubious, and the unsoundness of loans due to the desire of banks to get their notes into circulation while little attention was paid to the security given. Such a system impeded business, for merchants had to become familiar with counterfeit detectors and had to keep informed on the values of notes offered in payment of goods and debts, while credit for the most part was too free and easy.

Sound banking systems, however, were developed in some sections of the country. When the Suffolk Bank was chartered in Massachusetts in 1818, it agreed to redeem the notes of any New England bank at par if the issuing bank maintained a reserve of $2,000 or more according to its capital and also deposited sufficient funds to redeem its notes that might reach Boston. At first many country banks refused to keep a permanent reserve with the Suffolk Bank, but they were forced into line when that bank began to collect and send to the country banks their notes for redemption. By 1824, the Boston banks joined with the Suffolk Bank in making the plan effective throughout New England and thus was established a form of clearing system for that section of the country. The plan was strengthened by several Massachusetts laws, one passed in 1858, requiring a reserve of 15 per cent against both notes and deposits.

The state of New York also established a stable banking system. In order to abate some of the banking abuses prevalent at that time, a plan was formulated in 1829 whereby each bank incorporated in the state was required to contribute each year to a safety fund an amount equal to .5 per cent of its capital stock·until it reached 3 per cent. When a bank failed and was liquidated, the fund could be drawn on to settle the remaining debts. This was actually a mutual insurance plan. The law also provided for the inspection of all banks at least three times a year. The system gave way to free banking when in 1838 the legislature of New York passed a law permitting any person or group of persons to engage in banking and to circulate notes secured by stocks, bonds, mortgages, and other collateral approved by and deposited with the state comptroller. An amendment to the law required that the securities should be limited to state and national bonds. This plan, followed by some western states, became the model for the national banking system established during the Civil War.

While most parts of the West delighted in unrestrained banking, several western states tried different systems of regulation. Many of these met disaster through politics, corruption, and inefficiency, but there were some exceptions. The State Bank of Indiana — one-half of its capital owned by the state — was established in 1834 after the model of the Second Bank of the United States. While it suspended specie payments during the panic of 1837, it recovered and provided a stable system until its charter expired in 1859. The State Bank of Ohio (1845–1866) with branches throughout the state, also provided a good plan of banking, combining the safety fund and bond deposit aspects. After the panic of 1837, an excellent system took shape in Louisiana putting an end to loose banking there. An act of 1842 set up a board of currency with broad powers of supervision. Deposits were protected; a one-third specie reserve was required; banks were prohibited from speculating; and bank notes had to be exchanged daily while specie settlements had to be made weekly. The value of the system became evident during the panic of 1857, for New Orleans suffered less than any other commercial city in the nation during that depression. The Louisiana plan, like the New York system, influenced the organization of the National Banking System.

Rise of Stock Exchanges

Stocks and bonds, which increased with the growth of the new nation as states granted charters to corporations, were at first bought, sold and exchanged through brokers and were frequently auctioned. Public securities, including the obligations of the United States as well as the bonds of the states, were handled in the same way. Early in March, 1792, an office was opened at 22 Wall Street in New York by a number of brokers, including A. L. Bleeker and Sons, J. Pintar, McEvers and Barclay, Cortlandt and Ferrers, and Jay and Sutton, for the purpose of holding "public sales daily at noon, selling in rotation." Later in the same month several of these together with a number of other brokers and merchants — twenty-four altogether — met around a table under a buttonwood tree in Wall Street and signed an agreement which resulted in a securities market, the forerunner of the New York Stock Exchange. The refunding of the federal debt, the assumption of the state debts, the establishment of the First Bank of the United States, and the increase of banks, insurance companies, turnpike companies, and canal companies gave an impetus to the sale and exchange of stocks and bonds.

A stock exchange was organized in Philadelphia in 1800, a year before one was established in London. The expansion of business during the War of 1812 was partly responsible for the formal organization of the New York Stock and Exchange Board in 1817 and this name remained until 1868 when it was changed to its present one. Securities markets arose in other cities, but the New York Stock Exchange became the leading stock market of the country.

During the early years of stock exchanges, members could trade in any sort of security and there were few restrictions. Thus bad stocks as well as good had an equal chance of gaining the attention of the purchaser, for no distinction was made between them. Ultimately this defect was recognized and eradicated. Regulations were put into effect; only the best stocks and bonds could be traded; and an approved list was made of all securities that could be bought and sold at the exchanges.

The volume of trade in the exchange of securities increased rapidly after the establishment of the New York Stock Exchange. In the period before the Civil War railroad stocks, mining stocks, and, from 1859 on, petroleum stocks were heavily traded in. State and municipal bonds were issued in large amounts. More slowly, manufacturing securities appeared in increasing quantities. Large amounts of capital came from abroad, but foreign investors generally preferred public bonds and railroad issues rather than manufacturing, banking or commercial stocks.

Panic of 1857

Following the recovery after the panic and depression of 1837–1842, the next periodic panic came in 1857. The decade after the

Mexican War was a "boom" period as speculation was rife in industrial development, railroad construction, land speculation, and in the expansion of not very well regulated state banking. Bank note circulation increased from $58,000,000 in 1843 to $214,000,000 in 1857, while loans jumped from $254,000,000 to $684,000,000 during the same period. The discovery of gold in California, and the beginning of development in the Far West also stimulated speculative enterprise.

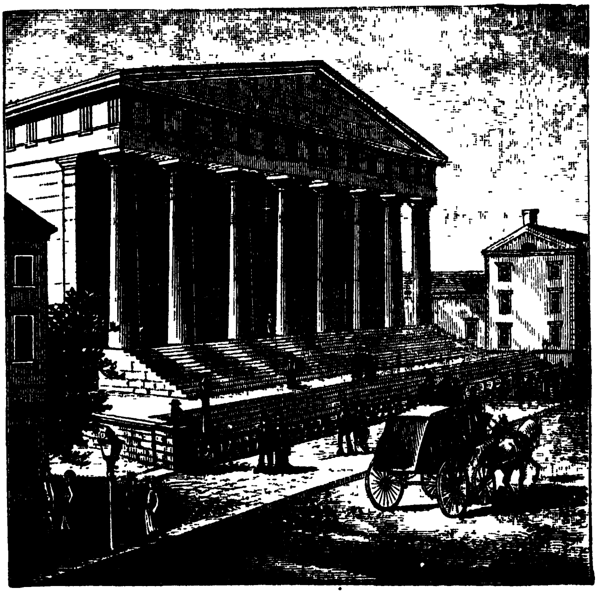
New York to Philadelphia Bank. "Going to suspend yourself, eh? Is that your Brotherly Love?"

"*Harper's Weekly,*" October 17, 1857
Cartoon during the Panic of 1857

Credit was once more strained to the breaking point and the country was plunged into the depths of depression.

The panic began with the failure of the New York branch of the Ohio Life Insurance and Trust Company of Cincinnati, which had financial connections in different parts of the country, with large liabilities to eastern financial houses. All banks in the city of New York, except one, suspended specie payments and nearly all the banks elsewhere followed. For a few months manufactures were almost paralyzed. Stocks and bonds fell and commodity prices declined sharply. The Illinois Central, the New York and Erie, and the Michigan Central were among the railroads that went into bankruptcy. The depression was most serious in the industrial regions of the East and the wheat belt of the Middle West, which were hit by bank failures. In the larger manufacturing centers, workers and laborers held protest meetings in which they denounced speculators, the New York Stock Exchange, the banks, and the wealthy as being responsible for the depression.

The Cotton Belt and the South in general were not so seriously affected as other sections of the country. In the South, there had been much less speculation than in the North, crops had been large, and the section was relatively prosperous. Of course, the panic had some effect in most southern regions as prices fluctuated and loans were more difficult to negotiate, but exportations of cotton, tobacco and other crops were not impeded. As a result, many southerners came to feel that their section of the country was economically sounder and more secure than the North, and during the sad years that followed, secessionists emphasized their belief that the South would be better off if it built up a financial system of its own, entirely independent of the North. Agitation for a higher tariff by northern protectionists, who believed that the low tariff policy was one of the chief causes of the panic, also aroused southern fears and built up a desire to become free from the economic domination of the North.



THE OLD UNITED STATES BANK, PHILADELPHIA

CHAPTER XIV

The Civil War

The Sectional Background

The spirit of sectionalism, ever-present in American development, has produced many regional conflicts, struggles and disagreements. Differing ideas and ideals naturally emerged from divergences of climate, geography, soil, natural resources, race and cultural backgrounds. The early isolated settlements were soon followed by three relatively well-defined areas: New England, the middle colonies, and the South. By the time of the Civil War, there were at least four important regions including the East (New England and the middle states), the Old South, the West, and the Southwest. On the eve of the conflict a much larger and broader division revealed two general areas: the North with its rising industrial life and the South with its agrarian economy. During the period after 1789, a feeling of unity developed among Americans, but many sectional issues interfered somewhat with the trend of nationalism. The most serious controversy led to the Civil War.

The United States had grown in a most remarkable way after the Republic was established, and by 1860, it encompassed a tremendous area of territory. Its population had increased tenfold. Its national wealth had reached a point far beyond the wildest dreams of the founding fathers. Great cities were rising. Manufacturing was changing life in the North. But the country was still predominantly agricultural and most people were farmers.

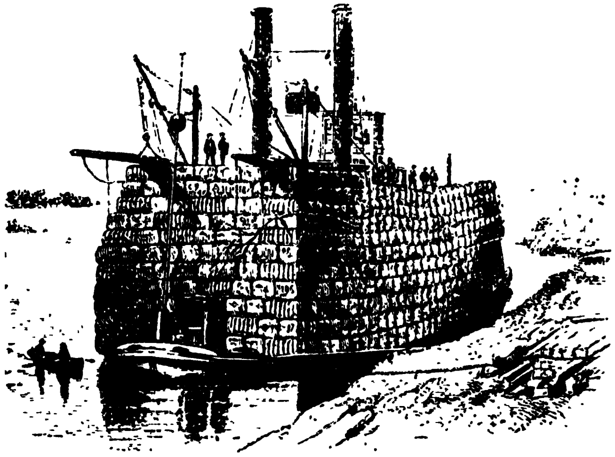
On the eve of the Civil War, the progress of manufacturing industries in New England and in the middle states was striking. Commerce and finance, largely in the hands of easterners, were also flourishing. While the interests of different classes in the East — industrial, commercial, and agrarian — often seriously conflicted, the dominant groups demanded protective tariffs, privileges and subsidies for business enterprises, and a sound banking system. During most of this period the agrarian interests of the South and the West were strong enough to obstruct these policies as can be seen in the failure to levy high tariffs in the years preceding the war, in the few federal subsidies granted to business, and in the defeat of a centralized banking system after 1836.

Among the demands made by the West during the period, governmental aid for internal improvements was foremost. With the exception of the Cumberland Road, the amount of federal funds invested in western transportation was not large. Localities and states had to develop and finance plans of their own. The West also demanded free lands and was continually opposed by the East. Not until the middle of the century did politicians seriously advocate "free land for the landless." A homestead bill did pass in the House in 1852, but was defeated in the Senate and ten years elapsed before a policy for distributing free lands became law. By this time it was clear that the westerners might become political allies, and cooperation between East and West in the war finally brought the Homestead Act of 1862. The West opposed a strict centralized system of banking and was successful in this after the demise of the Second Bank of the United States. Many westerners desired a loose system of banking and plenty of easy money but some state systems in the West became strict and highly regulative. The West as a whole opposed high protective tariffs, but as industry developed throughout that section, defenders of protection increased in number.

The Old South generally opposed a protective tariff except in the early part of the nineteenth century, especially in 1816 when it looked forward hopefully to the development of manufacturing industries. The South objected to a centralized banking system and to internal improvements at national expense, as well as to privileges and subsidies for business. The interests of the Southwest were in many ways similar to those of the Old South as westward expansion there meant the extension of southern culture and economic life, as can be seen, particularly, in the production of cotton. But the Southwest desired internal improvements and free lands, demands that were opposed by the Old South.

The South

Taking the South (including the Southwest) as a complete unit, it is correct to say that it was an agrarian area. Agriculture was the chief interest and the production and sale of cotton were of great importance in its economic and social life as well as in its political economy. Less than 8 per cent of the population lived in towns of 4,000 or more and these were largely dependent upon the surrounding agricultural communities. But the notion that the South had no manufacturing industries is not correct. Before the Civil War, iron furnaces and forges flourished in many parts of Virginia, Tennessee, and Kentucky. The Tredegar Iron Works of Richmond, Virginia, established in 1836, came to rival some of the Pittsburgh mills, for in 1860 they included rolling mills, foundries, machine shops, and metal works. Locomotives and railroad equipment of all kinds were turned out as well as other types of iron products. Much coal was mined in certain areas. Cotton mills were also built in the South, but the industry was relatively small. Likewise the number of factories and shops did not grow very rapidly. The South produced a little less than 10 per cent of all the manufactures of the country in 1860.



From "The Great South," by Edward King, 1875

A COTTON STEAMER

Southern leaders recognized the fact that the South was increasingly falling behind the North in population, manufacturing, transportation, commerce, and in other lines of economic development. Many southerners preached the importance of manufactures. Between 1837 and 1839, "direct-trade" conventions were held in Augusta, Charleston, Richmond and Norfolk, and a Southwestern Convention of a similar kind was held in Memphis in 1845. These were forerunners of the Southern Commercial Convention which met successively at Baltimore, Memphis, Charleston, New Orleans, Richmond, Savannah, Knoxville, Montgomery, and Vicksburg between 1852 and 1859. Representatives from different parts of the South attended its meetings and plans of all sorts were suggested. Many felt that the financial, manufacturing, and commercial dependence of the South upon the North resulted in a drain of southern wealth and in the economic debilitation of the region. Among the proposals made to promote economic activities were the building of a southern transcontinental railroad, the establishment of southern steamship lines for oceanic trade, the improvement of harbors and shipping facilities, the promotion of trade with Europe and Latin America, the encouragement of southern manufactures through bounties and premiums, the imposition of discriminatory taxation on northern-made goods, and the promotion of industrial and commercial education. In spite of these proposals to broaden the economic life of the South, little was accomplished.

Cotton became the chief crop of the South. Although not grown for commercial purposes in the United States until after the Revolution, production in 1860 reached the remarkable figure of 3,841,416 bales when cotton exports represented 61 per cent of the total of all American exports. Cotton fed the mills of old England and New England and as the South concentrated on its production, that region provided markets for the manufactured goods of the North and for the grain and livestock products of the West. Cotton became the major money crop of the South, but its continuous cultivation and the exhaustion of the soil resulted in a westward movement in search of new and better lands until cotton and slavery had moved westward from the Atlantic and extended over the region to Texas. By 1860, Mississippi, Alabama, and Louisiana produced more than one-half the total cotton crop in the United States, while Texas produced more than South Carolina.

In 1790, tobacco, the South's chief staple during the colonial period, ranked first on the list of American exports. This recovery after the setback of the Revolution, however, was only temporary. International trade difficulties during the European wars; the developing rivalry with cotton; the overseas demand for wheat; the attempts of England after the War of 1812 to stimulate West Indian importation; and competition with Cuba, Sumatra, Colombia and other regions affected the position of United States tobacco in world markets. Not until after 1820 were old levels regained and not until the middle of the century was there a real spurt in tobacco production. By this time its culture had expanded into the Mississippi Valley. In 1850, Kentucky, Tennessee, Ohio and Missouri were raising more tobacco than the states east of the Alleghenies, although Virginia maintained leadership until 1860. The western product, grown on virgin soil, was successfully competing in foreign markets with the tobacco of the older sections. Louisville, St. Louis, and New Orleans became important trade and manufacturing centers for tobacco in the West.

During the decade 1850–1860, the total production of tobacco more than doubled. This was due to general business expansion and prosperity; to the discovery and production of the bright yellow-leaf variety — lighter than the old varieties — which stimulated consumption considerably; and to the new methods of flue-curing which supplanted the charcoal fire method. The cigar market also broadened as standards of living were raised, for in earlier times, the smoking of cigars was a mark of social distinction. In the Old South, Richmond, Lynchburg, and Petersburg were important tobacco manufacturing centers and Durham, North Carolina, was just beginning its phenomenal career. Among the northern centers of tobacco manufacture, New York and Philadelphia became outstanding, especially in the production of cigars.

The production of rice, begun during the colonial period, expanded considerably. The rice plantations of the South Carolina and Georgia coasts were centers of wealth and culture, although in many cases they were operated by overseers because the absentee owners feared the malaria of the lowlands. The plantations with their irrigation systems of ditches, sluices, and water gates for flooding and draining the areas, represented an achievement in agricultural engineering. Drills and harrows were used generally and threshing machines were also adopted. After 1820, steam was introduced as motive power in threshing mills which consequently were moved from the plantations to the towns. Unlike the expansion in cotton and tobacco in the decade before the Civil War, the production of rice declined from 215,000,000 pounds in 1850 to 187,000,000 in 1860. The Civil War dealt a blow to rice culture in the region of the South although there were partial recoveries for a generation. But the failure of free black labor to accomplish the work earlier done by slaves in the unhealthful swamps, together with destructive storms and competition with the increasing production of rice in the Southwest, put an end to the rice plantations of the Carolina and Georgia coasts. By the twentieth century they were no more, save as swamplands or shooting preserves of the wealthy. In the Southwest, prior to the Civil War, there was a slight development of the industry in Louisiana, Mississippi and Alabama. Later in the century, however, Louisiana became the leading rice-producing state in the country and in more recent years Texas and Arkansas made important gains.

The production of sugar also became important. As early as 1751 Jesuits introduced sugar cane from Santo Domingo into Louisiana. In the half century that followed, it was used for making syrup and "tafia." In 1795, Étienne Boré discovered a satisfactory method of granulating the syrup, which stimulated the growing of sugar cane in that region. When Louisiana became part of the United States in 1803, sugar cane was an established crop and in the years that followed, it was cultivated along the Gulf coast and in parts of the Old South, chiefly for syrup. In 1818, the total production of sugar in the United States was only 25,000 hogsheads, but a few years later the introduction of steam power for crushing the cane gave the industry an impetus.

The production of sugar cane fluctuated in a most erratic manner — because of the varying prices of sugar and cotton, caused chiefly by changes in the tariff. For instance, in 1835, sugar fell to six cents a pound, below the cost of production, and the next year most planters changed to cotton culture. In 1842, the price of cotton fell at the time that the new tariff imposed a duty of 2½ cents a pound on brown sugar. Many planters shifted from cotton to sugar production. By the middle of the century and during the years that followed, cotton culture was prosperous and prices were high enough to check the further expansion of sugar production in the South. In considering these fluctuations, the effects of floods and damaging early frosts should also be noted. In spite of these variations, production increased from about 20,000 short tons in 1823 to 270,000 in 1861. By this latter date, the sugar plantations were using 180,000 slaves and the drain of labor from the Atlantic seaboard westward increased the price of slaves. The industry was in general limited to Louisiana, although it extended over to the Brazos River area of Texas and some cane was raised in the region eastward to Georgia.

The plantation system had its origin in the production of tobacco during the colonial period. In the years prior to the Civil War it reached its peak. By this time it was based on the culture of cotton, tobacco, rice, and sugar, although cotton had become the greatest force in southern economic life. The plantations with their mansions, slave quarters, barns, storehouses, fields, orchards and gardens were dependent, more or less, upon the West as well as on the farms of the South for certain agricultural products and meats, and upon the North for manufactured goods. Every phase of life in the South was under the domination of the plantation system, although in 1860 about 383,000 out of a population of more than 8,000,000 owned slaves in the plantation states, while less than 2,500 planters owned 100 or more slaves each. It was this latter group that largely controlled the South. About 1,000 families received more than $50,000,000 of the total income of the South compared with about $60,000,000 for the remaining 666,000 families. The wealth and power of the entire section were in the hands of a few.

Between the small number of the important planter class at the top of the social scale and the Negro slaves at the bottom were several other groups. The lesser planters and middle class farmers, who possessed from five to twenty-five slaves, together with the professional men and merchants of the towns and cities, who usually held one or more slaves as servants, were in sympathy with the ideals of the plantation system and provided the most vigorous defenders of southern civilization. The skilled workmen, yeomen farmers, and small tradesmen usually gave support to the ruling order. Another class of southern society, separate from the rest and with little or no contact with slavery, were the white inhabitants of the mountain areas of Virginia, the Carolinas, Georgia, Tennessee and Kentucky, who for the most part were small farmers. Still another group were the poor whites, low in the social scale. They were often squatters on the poorest lands, but usually inhabited the pine barrens of the low country, the sand hills farther inland, or remote mountain districts. Known by such names as "hill billies," "crackers," "sand hillers," and "red necks," their existence was aggravated by poverty, hookworm, malaria, corn whiskey and a poor diet. They were descendants of worthy frontiersmen who had not been able to stand the strain of a rugged environment. They hated the ruling class as well as the Negro with whom they were forced to compete. The free Negroes, about 250,000 altogether, who lived chiefly in the upper southern states, constituted a problem, for they found it difficult to fit into the southern scheme of things, although many were good carpenters, blacksmiths, coopers, and shoemakers. At the bottom of the social scale were the 4,000,000 Negro slaves, who worked on the plantations and farms, or in the cities and towns.

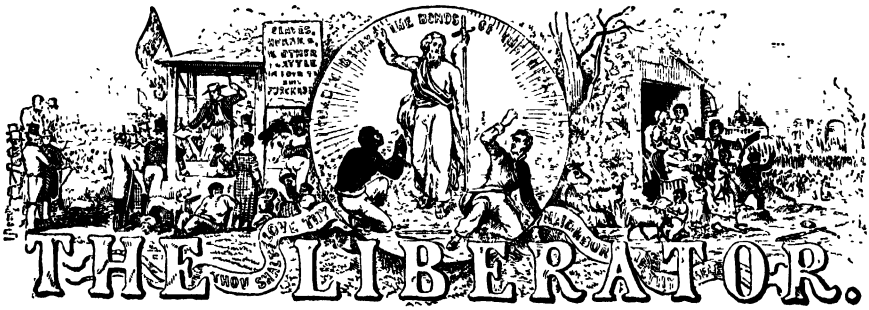
Slave markets and auctions could be found in all the important towns of the Old South and the Southwest, but the large markets were located in Richmond, Alexandria, Charleston, Savannah, Mobile, Natchez, New Orleans, Memphis, Louisville and Lexington. Many slaves, bred in the older states, were transported to markets in the Southwest in ships by way of the Gulf; others were sent down the Ohio and Mississippi Rivers. Some were taken part of the way overland from Alexandria. During the decade of 1850–1860 it was estimated that the annual turnover of slaves was about 80,000, valued at $59,000,000. While the foreign slave trade legally came to an end in 1808, slave traders continued to smuggle their captives into America until the Civil War in spite of the law of 1819 which made slave-trading piracy and a capital crime. The attempts of patrols to extinguish the trade were only partly successful.

The Anti-Slavery Movement

Few protests on moral grounds were made against slavery during the colonial period. At its close, much concern was being shown in South Carolina and Virginia over the large and increasing slave population. Attempts to restrict the slave trade were prevented by England on the ground that it would interfere with the trade of the empire. In 1774, the Association of the Continental Congress forbade importations from England and, in the original draft of the Declaration of Independence, Jefferson severely condemned the traffic in slaves. The philosophy of the Revolution included a stress on the rights of man, which benefited to a certain degree the Negro of the South, for a number of plantation owners freed their slaves or made provision in their wills for their emancipation. The movement was influenced by the egalitarianism then dominant in England and by the essays of Quakers like John Woolman and humanitarians like Thomas Jefferson. It was also stimulated by the decline of tobacco culture, and it can be seen in the legislation ending the foreign slave trade by all the southern (as well as northern) states before 1803, prior to the federal law of 1808. Between 1776 and 1800, all the northern states passed laws providing for the abolition of slavery. But by the beginning of the nineteenth century, slavery fastened itself on the South once again as the demand for cotton increased. The philosophy of the rights of man as it touched the slaves was forgotten and while Negroes could not be legally imported from foreign shores, the breeding of slaves in the Old South increased in importance.

Under the impetus of the philosophy of the Revolution, anti-slavery societies were established. As early as 1775, the "Pennsylvania Society for Promoting the Abolition of Slavery, the Relief of Free Negroes Unlawfully held in Bondage, and Improving the Condition of the African Race" was organized. Others followed in different parts of the country, and they were strongest in the border states between North and South. Members of these societies were concerned with the welfare of slaves and were Fabian in their methods, advocating gradual emancipation and hoping that through education and enlightenment, slavery at some future time would come to an end. During the first part of the nineteenth century the crusade against slavery was not militant or bitter. Leaders like the pious Quaker, Benjamin Lundy, a native of New Jersey, who in 1821 began the publication of the *Genius of Universal Emancipation* in Ohio, traveled over the country lecturing and organizing societies.

The question of colonizing Negroes who had been given their freedom was discussed at this time. As early as 1802 the legislature of Virginia adopted resolutions favoring the colonization of the Negroes in Africa or South America by the federal government, but without result. In 1816, a private organization, the American Colonization Society, was established by such men as Bushrod Washington and Henry Clay. Local branches were established in every state; many legislatures and churches contributed funds. Money was raised to buy slaves, transport them, and settle them in Liberia, Africa. Between 1821 and 1867 about 6,000 free Negroes were sent to the new colony which in 1847 became an independent republic. While the work done by the society was worth while, the number of Negroes aided was relatively small because of a lack of funds.


THE LIBERATOR.

Head of *"The Liberator"*

About 1830, a new abolition movement began. It was a part of the general awakening of the humanitarian spirit as seen in the growth of the temperance movement, the beginning of the agitation for women's rights, and reforms of many kinds. By some, slavery now came to be identified with tyranny and opposed to a growing democracy. The leader of the new movement was William Lloyd Garrison who founded the weekly anti-slavery *The Liberator* in Boston in 1831. Though it never had a large circulation, it was the leader among journals which advocated and demanded immediate, uncompensated emancipation. Garrison denounced the Constitution of the United States as "a covenant with death and an agreement with hell" because some of its clauses pertained to the institution of slavery. The new movement grew as can be evidenced in the development of new societies led by the New England Anti-Slavery Society and the American Anti-Slavery Society. In the West, Oberlin College in Ohio became the center of anti-slavery activities. Among the new leaders were the wealthy brothers, Arthur and Lewis Tappan of New York, the eloquent Wendell Phillips of Boston, and Theodore Weld of Ohio. The former slave owner, James G. Birney, who was identified with the group for a decade, led a break in its ranks to form the Liberty Party (1840) which demanded political and not revolutionary action in the emancipation of slaves.

While the new radical movement expanded in the North, it met with hostility, especially on the part of business men and those who objected to such radical methods. Opposition was occasionally expressed in violence as abolitionist meetings were broken up and printing presses destroyed. The murder of the Reverend Elijah Lovejoy, an abolitionist editor of Alton, Illinois, and the burning of Pennsylvania Hall in Philadelphia where abolitionist meetings were held were two spectacular instances of the attempts to suppress the movement. While the new movement grew, the moderate abolitionists increased in number and another plan to oppose slavery also took form — the Underground Railroad.

The informal, secret system of aiding fugitive slaves to escape to free states or Canada became known as the Underground Railroad. Quakers, Methodists, northern Negroes, and others aided fugitives to escape northward, assisting them from one place to another at night and hiding them during the day. The system of secret routes developed until it extended through fourteen northern states from Maine to Kansas. Thousands of slaves were lost to their masters each year and, prior to 1850, the southerners demanded a stricter fugitive slave law.

The several anti-slavery movements put the southern slave holders on the defensive. In Congress a gag rule to prevent the consideration of anti-slavery petitions was pushed through the House of Representatives in 1836 and remained in effect for eight years. At the same time, there was much excitement over the freedom of the mails as abolition literature was refused in parts of the South. The growing opposition to slavery led to many arguments justifying it. Led by John C. Calhoun, Thomas R. Dew and others, slavery was defended and religion, history and economics were marshalled to prove its soundness. The change in the southern attitude toward slavery since the Missouri Compromise was evident. In 1819, it was argued that more territory should be opened to slavery in order to dilute it. By 1850, slavery was depicted as a "positive good" and should be protected even in the territories.

Among the arguments in favor of slavery, the scriptural one was important. It was pointed out that many passages in the Bible relating to slavery were a justification for the institution and therefore it was as old as civilization itself, receiving divine sanction. It was shown that great cultures had been based more or less on slavery and therefore history had placed its seal of approval on it. Stress was laid on the work of the founding fathers in recognizing it in the Constitution and, although the words "slaves" or "slavery" did not find a place in the basic law of the country, certain agreements regarding slavery were written into the Constitution. Justifying slavery from the economic point of view, it was stated that about $2,000,000,000 had been directly invested in slaves and other billions indirectly through investments in lands, cotton and tobacco. It was shown that the Negro as a respectable Christian slave was superior to his previous status of savagery in Africa and was also better off in many respects than the factory workers of the North who, it was declared, were slaves to machines and worked for pitiful wages in foul factories, uncared for in times of unemployment and cast aside in old age. Still another argument emphasized that cheap slave labor meant low-priced cotton which resulted in cheap cotton goods, benefiting people everywhere who wore such material. A final argument which ran through the whole period was based on fear It was stated that the southerners had inherited the institution and that the safety of the whites was involved when the question of emancipation was raised. The massacres in Haiti, the Nat Turner insurrection in Virginia, and other slave conspiracies and uprisings, actual and imaginary, placed the South on its guard. The argument that evolved from the question of emancipation set forth the idea that the two races could not live in the same region on terms of equality, for it was believed that the Negro race was inferior and would therefore destroy white culture and civilization. Without questioning the assumption of racial superiority, the southern whites were agreed that they should dominate to maintain the integrity and the civilization of the South.

Events Leading to War

The first serious sectional alignment that threatened the Union came in 1819–1820 over the admission of Missouri (p. 197). That controversy regarding the extension of slavery startled the nation. To Jefferson it was "like a fire bell in the night," even more serious than the crisis that had arisen during the Revolution. In the years that followed, other alarming sectional issues had to be met, especially the revolt of the planters in South Carolina in opposition to the policy of protection to northern manufactures. While the controversy over slavery increased after 1830, it became dangerous at the time of the Mexican War over the question of territory to be acquired from Mexico.

In Congress, at the beginning of the Mexican War, the Wilmot

Proviso, an amendment to an appropriation bill, proposed: "That as an express and fundamental condition to the acquisition of any territory from the Republic of Mexico by the United States, by virtue of any treaty which may be negotiated between them, and to the use by the Executive of the moneys herein appropriated, neither slavery nor involuntary servitude shall ever exist in any part of said territory." The Proviso precipitated a bitter and serious debate over the question of slavery in the territories. Although it failed, it was brought up in one form or another more than a score of times during the war.

After the treaty of Guadalupe Hidalgo which ended the war and rounded out the possessions of the United States to the Pacific, the issue of slavery became critical. Many northerners, convinced that slavery was an evil, determined that it should be limited to the states where it already existed and that it should be kept out of the territories. Southerners resented the moral issue that had been forced to the front and decried the attempt to exclude slaveholders from territories acquired by common effort. The question as to whether the Constitution followed the flag was ably debated by Webster and Calhoun. The former insisted that the basic law of the country did not automatically go into effect in newly acquired territories and that only those provisions that Congress saw fit should be extended there. Calhoun, on the other hand, championing the extreme southern view maintained that the Constitution, protecting the property of all citizens, was in effect in all American possessions and therefore it was the duty of Congress to uphold slavery in the territories. The critical aspects of the controversy brought many suggested compromise proposals, among them extending the Missouri Compromise line to the Pacific; permitting the people who settled in a territory to decide the question (popular sovereignty); or throwing the responsibility for deciding the issue upon the courts. The seriousness of the issue can be seen in the call for a southern convention at Nashville as threats of secession increased.

Congress in its session of 1849–1850 effected a compromise and averted the possibility of war. The aged Clay had been returned to the Senate by his constituents for the purpose of bringing peace. Since several issues had to be adjusted, he suggested solutions by means of a series of resolutions and pleaded for compromise. Calhoun's last message was one of despair, for he could see no solution to the attacks of northern abolitionists on the institution of slavery. In a few days he was dead, but his spirit and ideas led the party of secession in a much stronger manner than he was ever able to do during his lifetime. Webster, like Clay, pleaded for compromise and stressed his belief that slavery could never be profitable in the new territories because of the character of the terrain and climate. He was assailed and condemned by radical abolitionists for his stand. In Congress, William H. Seward and Salmon P. Chase were the spokesmen of the radicals. After bitter debates extending over nine months, five laws were passed, each formerly included as sections of a proposed omnibus bill which could not secure sufficient votes to be passed as a whole. One by one a majority was obtained for each measure and the Compromise of 1850 was effected.

Under the terms of the Compromise, Utah and New Mexico were made territories to be admitted with or without slavery when they applied for statehood as their constitutions should provide. Thus, popular sovereignty was written into law. California, now teeming with gold hunters who had no interest in slavery, was admitted as a free state without the requirement of going through a formal territorial period. A boundary dispute between Texas and New Mexico was settled in favor of the latter, but Texas received $10,000,000 which was intended to liquidate the debt of that state. A strict fugitive slave law, demanded by the South to replace the ineffective law of 1793, vitiated by such Supreme Court decisions as Prigg *vs.* Pennsylvania (1842),[1] was included. The new law was stringent for it did not permit a jury trial; the master or his agent could bring the charge against an alleged runaway; the judge or commissioner received a double fee if he decided in favor of the slave owner; the testimony of the fugitive was not admitted; anyone hindering an arrest or attempting to rescue a supposed runaway slave was liable on conviction to a fine and to imprisonment; and federal marshals could deputize bystanders to help them in making arrests, with heavy penalties for refusal. Another law abolished at last the slave trade in the District of Columbia and no longer could slave markets be held in the shadow of the Capitol. Slavery, however, was not interfered with in any way in the District of Columbia.

Attempts were made to make the Compromise final. This can be seen in the speeches of northern and southern leaders, pledges made by congressmen, the "finality resolutions" introduced into Congress, the messages of President Fillmore, the weakness demonstrated in the Nashville Conventions, and the attitude of the moderates in both sections. Many southern states held conventions to consider and pass judgment on the Compromise. Several endorsed the sentiment of the

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[1] While this decision stressed the right of the slave owner to recover a fugitive slave without obstruction from any state law, it pointed out that the federal statute did not require the state authorities to assist in capturing fugitives.

Georgia Convention as set forth in the Georgia Platform which stated that while the Compromise could not be wholly approved, it was accepted in order to preserve unity, but only upon the "faithful execution of the Fugitive Slave law by the proper authorities depends the preservation of our much loved Union."

On the passage of the fugitive slave law, thousands of former fugitive slaves who had been living in northern cities for years fled to Canada. Radical abolitionists denounced the law and frequently aided the Negroes. They even attempted to seize runaways from marshals who had placed them under arrest. Riots occurred in several places. Northern states passed a new series of personal liberty laws, requiring rigorous proof of ownership, severely penalizing illegal seizures, denying the use of jails for the detention of runaway slaves, and guaranteeing to fugitives the right of jury trial. It seemed that this section of the Compromise would be the first to result in failure. Its operation, however, was overshadowed by other events which widened the breach between the North and South, and led inevitably to the Civil War.

The passage of the Kansas-Nebraska Act of 1854 (p. 198), which repealed the Missouri Compromise, intensified the controversy over slavery in the territories, as bloody warfare was waged on the plains of Kansas when northerners and southerners sought to control the territory since the principle of Douglas' popular sovereignty was now in effect. Then followed the Dred Scott decision of the Supreme Court (1857). Seven justices, led by Chief Justice Taney, agreed in deciding that a Negro was not a citizen and therefore could not sue in a federal court, although the minority of two justices hotly contested the arguments and opposed them. But the part of the decision that stirred the North was the statement that Congress had no power to exclude slavery from any of the territories because the Constitution protected the institution everywhere in the country. This idea had been the extreme contention of Calhoun and other southern leaders It struck a blow at the arguments of the anti-slavery forces. By this interpretation the Missouri Compromise had always been unconstitutional and the newer doctrine of popular sovereignty was of little meaning. The decision created a sensation. It was condemned in the North as purely political and not the reasoned judgment of the jurists; if enforced, it meant that Congress could not abolish slavery in the territories but was bound to guarantee to all slave owners the protection of their slaves; it increased the hostility between North and South, and the inflamed discussions that followed did much to precipitate the war.

An event that further led to the crisis of war was John Brown's raid at Harpers Ferry, at the junction of the Potomac and the Shenandoah. Fresh from "bleeding Kansas" and from participation in raids against slavery there, John Brown planned to liberate the slaves of the South through a series of revolutions, beginning in the Allegheny Mountains in Virginia. Aided by a small band of relatives, friends and a few Negroes, he tried to seize the government arsenal at Harpers Ferry in order to use the weapons in freeing the slaves, and to establish a Negro republic. The raid failed. Brown was convicted of treason and hanged. Southern newspapers were especially incensed at the sympathetic comment on Brown in some of the northern papers. While the event in itself was not of outstanding importance, a thrill of horror ran through the South as it suspected, incorrectly, that mass attacks on the South by the radical abolitionists would follow. Actually, Brown's supporters in the northern states were few in number and none possessed complete knowledge of his real plans. However, friends raised the money for his scheme. Most northerners repudiated the plot, for they saw in it not only an assault against the South but an attack upon organized society and democracy. Yet a few, like Emerson, called Brown a new saint who was to "make the gallows glorious like the cross." The incident cut the South to the quick and, among other things, was a factor that increased prejudices and passions on both sides.

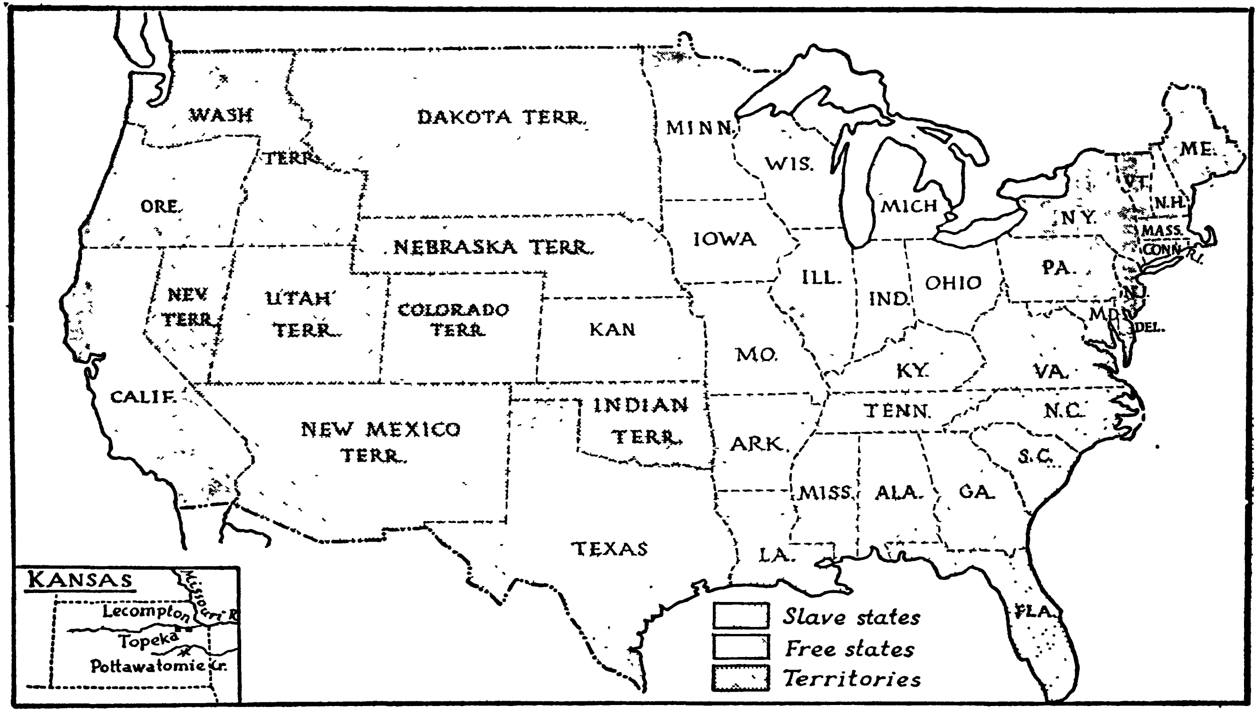
A final step that led to war was the election of Lincoln and the "Black Republicans." The South had threatened secession if the election went against that region. Lincoln won the presidency but by a minority vote as four presidential candidates participated in the election. In the South, he did not receive a single electoral vote. The party that supported him was wholly in the North. In December, South Carolina seceded from the Union and in time was followed by ten southern states. Upon taking office, Lincoln swore to preserve the Union and his efforts to do this brought on the tragic war that for four bitter years drenched a divided country in blood.

Opinion varies somewhat as to the relative importance of the fundamental reasons for the Civil War. Some writers insist that the quarrel over the question of slavery and its extension was the most important cause for disunity; others emphasize the idea of states' rights to which the South had held tenaciously throughout the period; a number hold that the war was the result of a struggle for power between the planter aristocracy of the South and the industrial magnates of the North, involving such issues as the tariff, banks, and subsidies; still others suggest that southern political leaders, fearing the growing power of the North, were largely responsible. Most agree that the struggle was due chiefly to the widening breach between two civilizations — the one dominated by rising industrial ideas and standards, the other still largely agrarian — which conflicted at a thousand different points and over many issues. No interpretation can omit, however, the basic differences in climate, soil, society, economic life, labor systems, and culture as antagonisms increased.

The events of the 1850's which stimulated propaganda and counter-propaganda, explain the increasing controversy which led to the conflict. From the Mexican War to the attack on Fort Sumter, national political parties developed into instruments of sectional hatred. Northern pulpits, forums, and the press spread propaganda and created misunderstandings about slavery and the plantation system. Books like Harriet Beecher Stowe's *Uncle Tom's Cabin; or Life Among the Lowly,* a sincere but inaccurate, emotionalized attempt by a northerner to depict plantation life, which went through many editions before the war and was also dramatized and produced on the stage, added fuel to the fire that was to sear and almost consume the nation.

In turn, the southern agencies of public opinion vigorously defended the institution of the South and retaliated against the attacks of the North. The economic, moral, and religious arguments for slavery were stressed. Tracts and pamphlets were published. Editors, writers, and orators became more and more antagonistic to the North. James D. B. DeBow, editor of the important *DeBow's Review,* argued in 1860 that the prosperity of the independent farmer of the South rested largely upon slavery and pointed out that: "The non-slaveholder knows that as soon as his savings will admit, he can become a slaveholder, and thus relieve his wife from the necessities of the kitchen and the laundry, and his children from the labors of the field." His journal emphasized continually that the wealth of the South was permanent and stable, whereas that of the North was "fugitive and fictitious."

Another eventful book in the slavery controversy was H. R. Helper's *Impending Crisis of the South and How to Meet It* (1857). It was an economic appeal to the non-slaveholders of the South written by one from the small-farmer class of that region. In spite of the fact that Helper had distorted and misinterpreted his figures, the book convinced many northerners, who had not been influenced by the moral argument, that slavery was an economic fallacy. The book had serious repercussions in Congress and deepened the cleavage between the sections. Thus, in innumerable ways, the psychological basis for war was laid. The serious controversies and countless irritations made the



Geography of Slavery, March, 1861. (Insert) The Region of Trouble in Kansas conflict inevitable in spite of the fact that the apparent important issue in 1860 was opposition to the extension of slavery into a region which most people realized could not foster or support the plantation system.

Material Strength of North and South

In material strength and power, the North was far ahead of the South. Altogether twenty-three states with a population of 22,000,000 were aligned against eleven southern states having 9,000,000 people, of whom 3,500,000 were slaves. The border states of Delaware, Maryland, Kentucky and Missouri, together with the area that became West Virginia (1863), and the southern portions of Ohio, Indiana and Illinois were largely southern in sentiment, though their economic ties were with the North. All of these states remained loyal to the Union. Of the border states, only Delaware and Kentucky kept slavery until the end of the war.

In wealth, the North was also far superior. Its real and personal property were valued at about $11,000,000,000 which was more than twice that of the South. Its banking capital of $330,000,000 was more than seven times that of the South. Most important was its great superiority in its transportation system, its industries, its commerce, as well as its general economic strength. How then did the South expect to win? It had the advantage of superior military leadership, trained horsemen, martial spirit, and of waging a defensive war; moreover, southern nationalism had become an important factor. The South counted on a short struggle and looked abroad, especially to England, for an alliance or at least for aid. It expected that the West would join forces with it. But the West had developed close economic ties with the East. On the promise of free homesteads, transcontinental railroads, and agricultural aid, it cast its lot against the South and did its part to create a solid North. As the war dragged on, the superior resources of the North played a most important part in the accomplishment of final victory.

Agriculture During the War

The North was in complete control of the chief granaries of the country during the war, as the constantly enlarging wheat and corn areas of the Middle West remained loyal to the Union. Increasing prices and the demand for foodstuffs of all kinds brought prosperity to the northern agrarians. In spite of enlistments, the drafting of large numbers of men into the army, and the continual stream of migrants westward, especially to the newly-opened mining regions of the Rocky

Mountains, agriculture in general grew steadily. The problem of the shortage of farm labor was solved in various ways — by the increased use of labor-saving machinery, by the work of large numbers of women and by immigrants who continued to come from Europe throughout the conflict. The Homestead Law of 1862 opened up new areas of farm lands. No invading armies caused destruction to harvests in the North which not only fed itself, but exported large surpluses. In the years just preceding the war, the United States exported about 20,000,000 bushels of wheat annually. In 1862, the figure was 60,000,000 bushels. Of course, the loss of the southern markets as well as increased production made this possible. During the first three years of war, the harvests of Great Britain were poor and the fact that England depended partly on the North for wheat contributed in some degree to prevent British recognition of Confederate independence. With domestic and foreign markets for their products, together with remarkably successful crops, farmers were active, prosperous and optimistic.

In contrast to the North, southern planting declined, but every available effort was made to produce foodstuffs. In the years before the war, the staple crops of cotton and tobacco had been exceptionally good. While there had always been much general farming in all southern areas, the South as a whole depended upon the North for a large part of its food. As war approached, many believed that cotton would save the South. In 1859, Senator Hammond said: "Without the firing of a gun, without drawing a sword, should they make war upon us, we could bring the whole world to our feet. What would happen if no cotton was furnished for three years? I will not stop to depict what every one can imagine, but this is certain, England would topple headlong and carry the whole civilized world with her. No, you do not dare to make war on cotton. No power dares to make war on it; cotton is king."

While large quantities of cotton were exported from the South at the beginning of the war despite the menace of northern warships, the shipment of cotton dwindled pathetically as the blockade tightened and it became evident that "King Cotton" had lost his crown and scepter. During the early years of the war, Great Britain's 2,650 cotton factories were not adversely affected by a lack of raw materials because a trade depression overstocked England with raw cotton. In fact some of the surplus raw cotton was reshipped to the North at handsome profits. By the close of 1862, however, as the war continued, England, France and other European countries were beginning to feel a shortage. English and French cotton factories were forced to shut down and thousands of workers were turned out of work. Most of the English aristocracy and most of the manufacturing and commercial classes sided generally with the South, but a minority of the leaders and the several million unenfranchised workers sympathized with the North, and supported new anti-slavery societies. Because of excessive profits and the need for ammunition, shoes, blankets, medicines and many other things from Europe, southern companies continued to operate blockade runners, but the amount of cotton and tobacco exported and the quantities of badly needed supplies imported grew less as the blockade became more and more effective by the spring of 1865.

Many Negro slaves were put to work raising grain and food crops instead of cotton and tobacco. As the war continued, the Confederacy found that it was almost impossible to feed itself. In some sections, food was relatively plentiful, for there were no crop failures during the entire war. But in many, there was a great scarcity of food because of problems of distribution as railroad lines were destroyed by northern troops and as roads and waterways were taken over or closed by them. The destruction of certain areas, such as Sherman's sixty-mile path of ruin in Georgia and the havoc wrought in the fertile Shenandoah Valley, stripped many regions of provisions. Then, again, inflation increased the problems of distributing farm products. Early in 1864, in Richmond, flour sold at $300 a barrel in Confederate currency at the time that a gold dollar was worth $22 in Confederate money. At different times owing to the scarcity of food and to soaring prices, riots occurred in Atlanta, Mobile and elsewhere. The Confederate troops were often fed on northern food obtained in exchange for cotton, although a Confederate law prohibited the exportation of cotton except by way of southern seaports. But northern laws permitted and closely regulated a restricted trade in southern cotton. By 1864, this trade, legal and illegal, provided the North with sufficient cotton to supply its factories. About $500,000 worth of goods and provisions each week were sent to the Confederacy from the North, chiefly through Memphis. General Grant and other army officers insisted that this trade prolonged the war at least a year.

Manufacturing and Industrial Life During the War

As the war began, a depression slowly settled over the North and extended westward. It was brought on by many factors, such as the uncertainty of business conditions following the panic of 1857, the breaking of economic ties with the South, the question of the $300,000,000 debts owed by southern merchants to northerners, the low cash reserves in northern banks, the collapse of wild-cat currency in the West, and the upset emotions wrought by the war itself. As the conflict broadened and the North readjusted itself to the grim conditions of war, the depression disappeared.

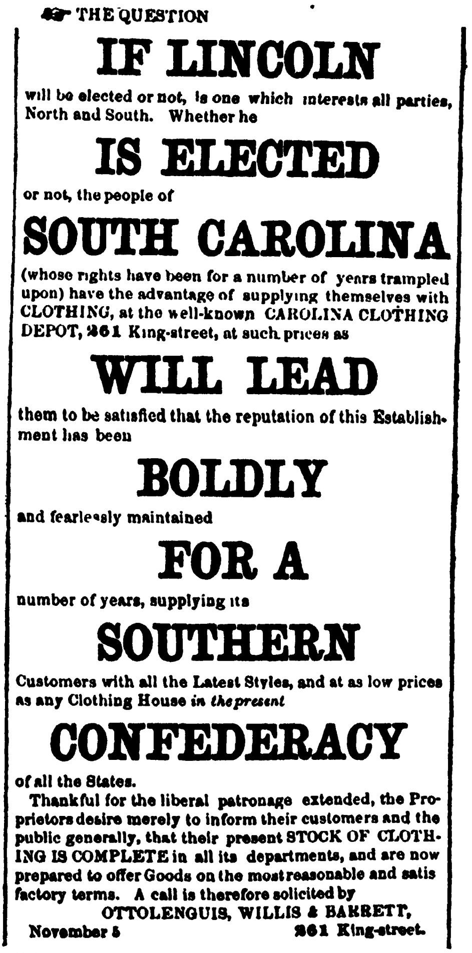
The demand for woolen cloth for army uniforms, undergarments, blankets and overcoats stimulated woolen manufacture at once. Many cotton factories were converted into woolen mills and new plants established. The war department found it necessary to purchase army cloth in England and France during the emergency, but not without general criticism and demands to patronize home industry. After the first year of war, American mills were able to produce all the cloth that was needed, but most worked day and night. including Sundays. Profits were tremendous as government contracts were made at high prices and many woolen companies declared unbelievable dividends. It was, perhaps, inevitable that there should be some fraud and corruption caused by the necessity for speed in supplying the demands of war. The production of shoddy, a cloth made of compressed rags, not pure wool, made fortunes for a few unscrupulous manufacturers and brought indignant protests. Most of the cloth made for the troops, however, measured up to high standards. The woolen interests held conventions, influenced the woolen schedules of the rising tariff, and organized the National Association of Wool Manufacturers.

During the beginning of the war, the cotton manufacturing industry, largely centering in New England and employing 200,000 workers, declined. By 1862, the production of American cotton mills had dropped more than 50 per cent as the war cut off the supply of raw cotton. Substitutes were sought for cotton thread as the price of cotton goods soared. In time, under regulations of the government, shipments of cotton from the confiscated and abandoned plantations were slowly moving northward and treasury agents, charged with this trade, were exchanging northern produce for southern cotton. Importations from abroad also continued. By 1864, there was no serious shortage of raw cotton. Many mills, like the woolen mills, now enjoyed unprecedented prosperity and declared high rates of dividends. With the aid of the increasing war tariffs, cotton products enjoyed protection as never before. Evidence of the growing strength of the industry can be seen in the organization at the time of the New England Cotton Manufacturers Association, later merged into the National Association of Cotton Manufacturers.

Other textile industries were less important. The cotton shortage stimulated efforts to revive the linen industry, but the high cost of dressing domestic flax and the high duties on imported fiber prevented much success. A large amount of Irish linen was imported and as a result linen manufacture in Ireland was greatly stimulated. Silk thread, trimmings, and ribbons were manufactured chiefly in Connecticut and in the Paterson-Philadelphia area, both accessible to imported raw materials and to metropolitan markets for the finished material. However, silk materials were made only on a small scale and broad silk goods were not produced extensively until after the war.

During the war, the improved sewing machine played an important part in a number of industries. From 1849, when Elias Howe put his machine on the market, many inventions were patented, the perfection of ideas current in America and Europe. In 1856, by the "Albany Agreement," the principal patents of the leading makers of sewing machines were pooled. Factories for the manufacture of such machines soon ranked among the country's largest establishments. The manufacture of clothing was thus stimulated and during the war machines were used not only in the homes, but were adapted for use in factories where clothing, footwear, saddlery, and harness were produced in large quantities. In the manufacture of shoes, the McKay machine for sewing soles to uppers marked a revolution in that industry, especially as steam power was applied. The leather industry as a whole was prosperous, providing materials needed in shoe factories, and also in saddlery and harness shops which furnished the equipment for the mounted troops, the artillery, and the long army trains.

The manufacture of firearms, of course, received a tremendous impetus. The usual equipment of the Union Army was the muzzle-loading Springfield or Enfield rifle, the loading being accomplished through the muzzle with a greased patch and hickory ramrod. Although there were in use in 1861 many types of breech-loading rifles, including the famous Colt revolver-rifles, and pistols, the improved weapons were not widely adopted by the army in spite of their increased rapidity of firing and greater ease of manipulation. Early in the war many regiments provided their own arms of nondescript types, from up-to-date arms to those of a musty vintage. In some instances, contractors provided at high prices antiquated and discarded weapons which they bought from European governments. A large part of these were useless for military service. Almost a year was required for private contractors to provide facilities for manufacturing rifles on a large scale. The Gatling gun, patented in 1862, was not generally adopted by the army, although successfully tested. Mounted on a light carriage, its six barrels were placed in a circular frame which was revolved by means of a crank, each barrel in turn being automatically loaded and fired. It was described as "a regiment of men put into half a dozen gun barrels" and fired up to 250 balls a minute, according to the speed with which the crank was turned. Except for those used by General B. F. Butler in Virginia during the latter part of the war, it was not used much. The older type cannon and heavy ordnance were retained. Less than 8,000 cannon were issued to the Union armies as against more than 4,000,000 rifles.



☞ THE QUESTION

IF LINCOLN

will be elected or not, is one which interests all parties, North and South. Whether he

IS ELECTED

or not, the people of

SOUTH CAROLINA

(whose rights have been for a number of years trampled upon) have the advantage of supplying themselves with CLOTHING, at the well-known CAROLINA CLOTHING DEPOT, 261 King-street, at such prices as

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them to be satisfied that the reputation of this Establishment has been

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Customers with all the Latest Styles, and at as low prices as any Clothing House *in the present*

CONFEDERACY

of all the States.

Thankful for the liberal patronage extended, the Proprietors desire merely to inform their customers and the public generally, that their present STOCK OF CLOTHING IS COMPLETE in all its departments, and are now prepared to offer Goods on the most reasonable and satisfactory terms. A call is therefore solicited by

OTTOLENGUIS, WILLIS & BARRETT,
November 5 261 King-street.

From "The Charleston Courier" of November 7, 1860, in the Confederate Museum, Richmond

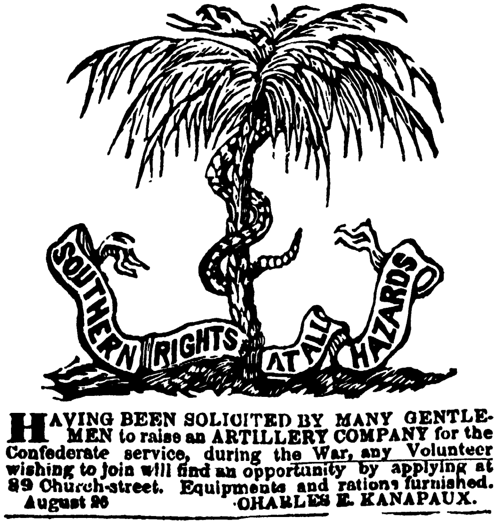
THE "CAROLINA CLOTHING DEPOT" MADE GOOD USE OF DAILY EVENTS IN ADVERTISING, AS THE SMALL PRINT ABOVE SHOWS

During the war, iron manufacture in all its branches flourished and expanded. Most of the pig iron of the country was produced in Pennsylvania, New Jersey and New York. Pittsburgh was the iron center, although there were others that were important. Iron products included cannon, guns, shot, engines, machinery, rails, tools and implements. The production of steel was small, although experiments were carried on in making Bessemer steel. The ironmasters and manufacturers of iron products strengthened their trade organization which dated back to 1855 and was known as the American Iron and Steel Association, and later, the American Iron and Steel Institute (1908). This organization arose in response to a need for a cooperative agency in the industry for the collection and dissemination of statistics and information for the investigation and discussion of problems, and for the advancement of common interests.

In manufactures of all sorts, standardization increased as the need for large quantities of equipment arose. As early as 1798, standardization of industrial production began when Eli Whitney devised a plan for producing interchangeable parts in making muskets. Identical parts were produced by means of the jig, a device for guiding a tool. In its simplest form, the jig is a metal plate in which a pattern is cut out and which can be followed in drilling or cutting out large numbers of the part. The idea was not entirely new, for it had been applied to making watches and complicated instruments long before. Jig-guided and power-operated machine tools as applied to firearms were improved and perfected by Simeon North, Samuel Colt and others. The principle was applied to the sewing machine, and to farm and other machines. The plan became known as the "American system" throughout the world and became the basis for mass production. During the Civil War, the army's need for large quantities of goods together with the shortage of man power gave a great impetus to the system and therefore to standardization in the production of uniforms, clothing, boots, shoes, harness, tents, utensils, and tools. It affected not only war industries but other types of manufactures as well.

The packing industry was carried on in a few cities, chiefly, in Chicago and Milwaukee. Cattle and other animals were slaughtered in or near most of the large cities for immediate consumption. Flour milling flourished in Rochester, Buffalo, New York, St. Louis, Milwaukee, Cincinnati, and in smaller cities. The home demand remained high and exportations of flour to foreign countries increased. Sugar refining prospered as a result of the protective tariff and an increasing demand for refined sugar in place of the crude sugar which was widely used up to this time. New refineries were built, especially in New York. Other centers included St. Louis, New Orleans, Louisville, and Cincinnati.

The development of natural resources went hand in hand with increasing industrial prosperity. Petroleum production rose from a negligible quantity in 1859, when the first successful oil well was drilled in western Pennsylvania, to 109,000,000 gallons in 1863. The production of lumber remained unaffected by the war. The mining of coal and iron increased. Mineral deposits of iron, copper and salt were opened up in Michigan. New sources of metals and minerals were discovered and exploited in the regions of the Rocky Mountains. The output of the older gold mines of California, which had reached its height in the fifties with an annual production of $65,000,000, was declining, but increasing quantities of gold, silver and other metals were mined in Nevada, Colorado, Idaho, and Montana. Large numbers of people crossed the plains on their way to the newly-opened mining areas. A motley group of older men, draft evaders, workers from the already-depleted agricultural areas, and some seeking escape from the disorders of the border states and even from the South, provided the labor necessary for the mines. One of the most remarkable aspects of the Civil War period was the new economic development in the far West.


SOUTHERN RIGHTS AT ALL HAZARDS

HAVING BEEN SOLICITED BY MANY GENTLEMEN to raise an ARTILLERY COMPANY for the Confederate service, during the War, any Volunteer wishing to join will find an opportunity by applying at 89 Church-street. Equipments and rations furnished.
August 26 CHARLES E. KANAPAUX.

An advertisement from "The Charleston Courier" of September 10, 1861,
In the Confederate Museum, Richmond

VOLUNTEER RECRUITING IN THE SOUTH

The agrarian South at war experienced difficulty in organizing and expanding manufactures. With little industrial development up to this time, all the resources of the South had to be directed toward equipping and maintaining the fighting forces. Buildings were taken over or erected for the purpose of producing uniforms, clothes, supplies, and equipment. Iron furnaces, forges, and manufacturing plants within the Confederacy were turned to war production and new ones built. The Tredegar Iron Works of Richmond, operated by Joseph Reid

Anderson, carried on experiments in military and naval armaments, and provided the southern forces with a large part of their munitions. The Shelby Iron Company of Alabama was also important in supplying the Confederacy with war supplies. At the outset of the war, arms and munitions from European countries together with heavy ordnance and supplies from captured federal seacoast fortifications, and arsenals, as well as the requisitioning of privately-owned arms, aided the Confederacy. Arsenals appeared at Richmond, Fayetteville, Augusta, Charleston, Savannah, Nashville, and Mount Vernon, Alabama (later, Selna, Alabama). Munitions depots were also established in various places and a government ordnance laboratory at Macon, Georgia. Saltpeter and sulphur were plentiful, but labor and equipment for their conversion into gunpowder were difficult to secure. As the war progressed, lead-smelting works, foundries, rifle and pistol shops, and other plants for making military equipment were built. On the plantations and in the shops, the Negroes played an important part in the war effort. One serious handicap in the South was the lack of sufficient transportation facilities to carry the materials and supplies to the war zone.

Financing the War

The condition of government finances in the North was not good on the eve of the war because in the years following the panic of 1857 the deficits of the government had to be financed through issues of bonds. The increase shook the confidence of many investors. When Salmon P. Chase reluctantly accepted appointment as Secretary of the Treasury in Lincoln's cabinet, he realized the enormous task which would be placed on his department by the war. At this time the public debt was $75,000,000 and available funds in the Treasury were but $1,716,000. He decided on a program of taxation to cover the ordinary expenditures of government and on a plan of loans to carry on the war. As the struggle continued, many different ways had to be found to finance it. Not until 1866, the year after the war, did most of the receipts of the government come from taxation.

During the war, the larger part of its cost was obtained through loans. This was the result of many circumstances including the inexperience early in the war of those in charge of raising funds, the belief that it was going to be a short conflict, the hesitation of the government to impose heavy internal taxes which were almost unknown to that generation, the fact that the Republican party was new and lacked solidarity, and the belief that the Morrill tariff would bring more money than it actually did. In the first year of the war, the banking system broke down under the strain of heavy government borrowing and specie payments were suspended on December 30, 1861. By this time the government had a deficit of $143,000,000 and a debt of $267,000,000 in obligations of different kinds. Throughout the war the government issued a great number of bonds and short term notes, varying in interest up to 7.30 per cent (bearing two cents a day interest on each $100 bond) and expiring at different dates, mostly within a period of five years. These had to be refunded in the period after the war. Between 1861 and 1865, inclusive, loans, including treasury notes, amounted to a total of $2,600,000.000. As a result of the difficulties involved in selling bonds, Jay Cooke and Company of Philadelphia were appointed agents to sell several issues. By means of a comprehensive organization and effective publicity the firm was quite successful.

Not since 1817 had a system of internal revenue taxes been imposed by the federal government. At first, Secretary Chase did not emphasize the need for excise taxes, but as the necessity for increased revenue became evident, Congress enacted a system of excises and set up the machinery for their collection (1862). It imposed moderate duties upon a large number of items rather than heavy ones on a few. Levies were imposed on beer, liquor and tobacco; manufactures and products; railroads and steamboats, banking institutions and insurance companies; advertisements and legacies; and legal documents of all kinds. The law also provided for licenses on occupations and taxes on the salaries of officers in the service of the United States. Between 1862 and 1865, internal revenue and income taxes amounted to $356,000,000. The first income tax in August, 1861, authorized a rate of 3 per cent on the excess of all incomes above $800 a year. It was so increased in 1862 and 1865 that incomes between $600 and $5,000 were taxed at 5 per cent and above that figure at 10 per cent. After the war the limit of exemption was raised and in 1867 placed at $2,000. The tax law was in force until 1872 and, although its constitutionality was questioned, no cases were decided by the Supreme Court while it was in effect.

At the same time that Congress passed the internal revenue act in 1862, changes were made in the tariff. The Morrill tariff had been planned in 1860 and passed on March 2, 1861. Representative Morrill of Vermont was a protectionist by conviction but the measure was moderate because its purpose was to bring revenue to a depleted treasury, and because a highly protective tariff had no chance of passing in the waning Democratic Congress. In 1862, the internal revenue taxes furnished a unique reason for protecting certain domestic industries. It was pointed out that if manufactures of certain products were to survive they should be protected "otherwise we shall have destroyed the goose that lays the golden egg." Except for the protective schedules, there were few other changes in the act of 1862, but it is important to note the beginning of a new protective policy which was to become permanent. In 1864, a revision was made in the direction of higher duties. Because increased excise duties were levied on manufactures, many schedules were made highly protective and the general level of the tariff was raised. The average rate on dutiable commodities was raised from about 37 per cent to 47 per cent and the new measure remained the basis of tariff legislation in the years that followed.

The vital need in 1862 for increased war funds led to the first issues of fiat money since the Constitution went into effect. The passage of the act of 1862, authorizing the issuance of $150,000,000 of greenbacks, was procured on the plea of dire necessity, although its constitutionality was questioned. Secretary Chase reluctantly gave his approval to the proposal. Some who opposed were sure that it would bring economic disaster through inflation. In spite of this view, during the war Congress authorized a total of $450,000,000 of United States notes. These greenbacks, as they were popularly known, were made legal tender for all debts public and private and for all taxes and debts due the United States except tariff duties and interest on the public debt. No specific gold or silver reserve was set aside nor was any date announced for their redemption, although on their face they bore the promise of the government to pay gold on demand. On being issued, they immediately depreciated and drove out of circulation the last vestiges of gold and silver coins, including subsidiary coins. Measured in terms of gold the greenback dollar was worth eighty-seven cents in July, 1862; seventy-seven cents in July, 1863; thirty-nine cents in July, 1864, and seventy cents in July, 1865. Not for many years did it come to equal the gold dollar in value. Because there was need for subsidiary currency, Congress authorized the use of postage and other stamps in 1862 and in 1863, but this awkward medium of exchange was replaced by notes of fractional currency or "shinplasters" in denominations as low as three cents. Altogether $50,000,000 of this unique money was authorized and it added to the income of the government in the war emergency. As a result of the shortage of currency, shopkeepers and tradesmen issued quantities of tokens and store cards.

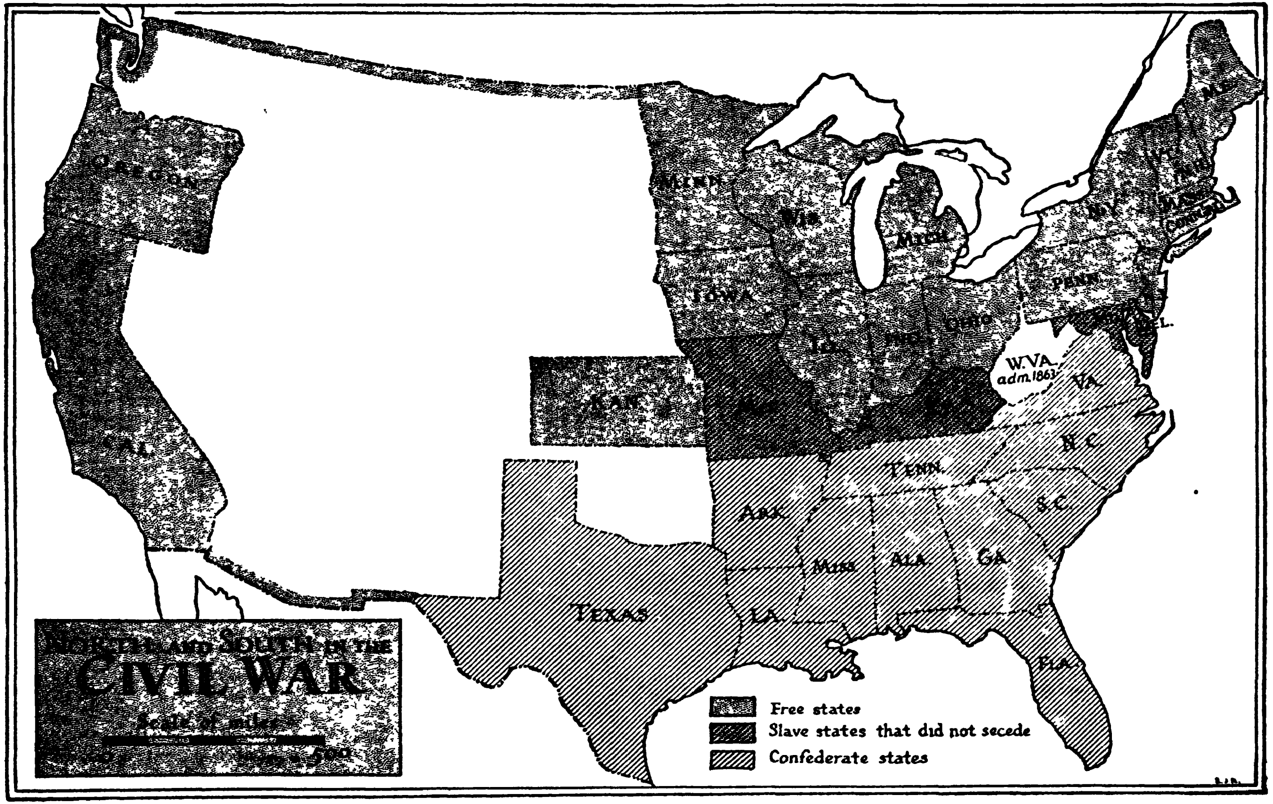
In his annual report of December, 1861, Secretary Chase proposed a national banking system in order that the government could exercise its authority over the credit distribution of the country. He believed that a uniform bank-note circulation was necessary instead of a multitude of currencies provided by banking systems dependent on the laws of thirty-four states. He also felt that it would give security to the Union because a common interest would be secured by requiring national securities as a basis for circulation. Little stress was placed on the requirement for government bonds as security in his report, but this was an important reason for the recommendation. These reasons were elaborated in later reports of Chase, but not until 1863 was "An Act to Provide a National Currency" passed. It authorized the establishment of banks which would have the right to issue notes up to 90 per cent of the current market price of government bonds which were required to be deposited with the treasurer of the United States. The system developed slowly. As defects in the law became evident, it was recast in the measure of 1864 and was called the National Bank Act. By October of that year there were 584 national banks having a circulation of $65,000,000. Thus a market had been provided for the sale of federal securities and at the same time a uniform system of banking and currency had been established. An act of March, 1865 imposed a tax of 10 per cent on the circulation of state bank notes beginning in July, 1866, to achieve the ideal of a uniform currency. This put an end to local bank notes. By October, 1866, the number of national banks had increased to 1,644.

The financing of the war in the South was much more serious and difficult because that section had been financially dependent upon the North. The fiscal machinery organized by the Confederate government was similar to that of the federal government, with its Treasury Department and several divisions. Under the Confederate constitution the government was authorized to coin money and to regulate its value, to authorize paper money as legal tender, and to borrow upon the public credit. The new government started without funds and the first step taken was to seize about $1,000,000 in the custom houses and mints of the South. At the same time in order to conserve specie and strike at the North, a law of 1861 forbade the payment of private debts to northern creditors and required that such debts be paid into the Confederate treasury.

Believing that the war would not be a long one, the southern Secretary of the Treasury, C. G. Memminger, at first emphasized loans. On February 28, 1861, the Confederate Congress authorized an issue of $15,000,000 ten-year bonds at 8 per cent. An export duty of one-eighth of one per cent on raw cotton was pledged for the payment of the interest. This loan drained the southern banks of specie. Other issues followed and, as it was impossible to secure specie, a number of them were made payable in produce including cotton, tobacco, sugar, and other commodities. By the end of 1862, gold had been drained out of the country, the result of the South's unfavorable balance of trade with Europe. This was caused partly by a brief embargo on the export of cotton by which it was hoped that England would intervene on behalf of the Confederacy before allowing her cotton industry to perish. By this time the northern blockade was also beginning to be felt. Early in 1863, however, a loan was arranged with the French banking firm, Emile Erlanger et Compagnie, for a secret issue of twenty-year bonds bearing interest at 7 per cent and secured by raw cotton. Although the loan was authorized at $15,000,000, it netted the Confederacy only about $6,500,000. In the remaining period of the war, the financial problems of the South became more alarming. Treasury notes were issued in large quantities with the result that inflation undermined the entire fiscal system.

As in the North, one of the chief concerns of the Confederate Treasury was to establish a national currency. In May, 1861, the southern Congress authorized an issue of $20,000,000. By the end of the year, $105,000,000 of such notes were outstanding. Issues of treasury notes followed one another in rapid succession. Attempts were made to bolster some of the issues and to prevent them from declining in value by making them exchangeable for interest bearing bonds at a future date, but without much success. As a result of the reckless policy of issuing such fiat money, more than $1,000,000,000, including fractional currency, had been authorized before the war came to an end. In addition to the paper currency of the Confederate government, states added to the flood, and notes were also issued by municipalities, banks, factories and business concerns. As a result of the disappearance of specie and the increase of paper money, inflation more serious than in the North set in, and before the end of the war Confederate paper money became worthless.

Although at the beginning of the war it did not wish to work out a policy of taxation, the southern Congress had to levy a number of taxes. In August, 1861, the Confederate Congress apportioned among the states a direct tax on real estate, slaves, merchandise, bank stocks, railroad and corporation stock, cattle, horses, mules, and many other types of property. It was not very successful as some states raised their quotas by issues of bonds or paper money; others took no action at all. Two years later an internal revenue tax of 8 per cent was levied on naval stores, salt, wine, liquors, tobacco, cotton, wool, sugar, molasses, syrup, and similar commodities. Among other taxes, in addi-


NORTH AND SOUTH IN THE
CIVIL WAR
Scale of miles
500
Free states
Slave states that did not secede
Confederate states
OREGON
CAL.
MINN.
WIS.
MICH.
IOWA
ILL.
IND.
OHIO
PENN.
N.Y.
MASS.
CONN.
DEL.
KAN.
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VA.
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TENN.
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ARK.
MISS.
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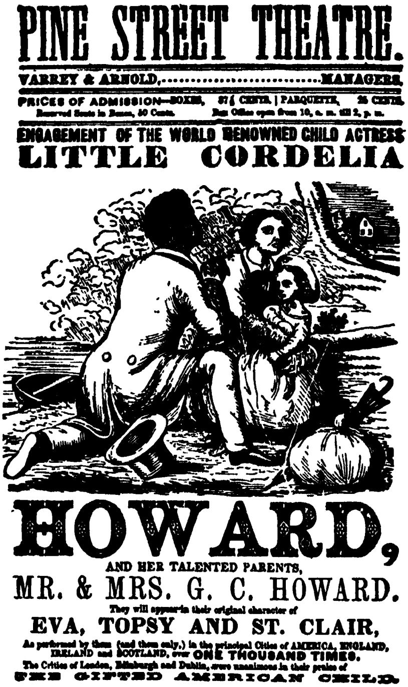
tion to the small customs duties, were those on incomes, license taxes on certain occupations, and a 10 per cent tax on agricultural products payable in kind. In spite of the variety of taxes only about $125,000,000 were raised in this manner out of total receipts from all other sources of $2,300,000,000.

During the last part of the war, economic demoralization spread over the South. Financial problems became acute. The confusion and depreciation of the currency together with the large borrowings made financial collapse inevitable. It came with the loss of the war but without doubt would have occurred in any event. More tragic for the life of the South after the war was the emancipation of all slaves without compensation to owners and the outlawing of the entire southern debt. The former was written into the Constitution by means of the Thirteenth Amendment; the latter by the Fourteenth.



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Economic Expansion

CHAPTER XV

Rise of Large-Scale Industrial Enterprise

The New Industrialism

The development of manufacturing industries and large-scale business enterprise in the period following the Civil War was phenomenal. Although the bulk of general manufacturing was carried on in shops and homes even as late as 1850, within the two generations that followed, "big business" and the factory system came to dominate economic life; the United States changed from an agrarian to an industrial nation; and the country passed the threshold of the machine age. Expansion and consolidation brought about a new industrial era in American life.

The Civil War itself was an important factor in the economic advances that were achieved. The rise of the factory system, the striking improvements in transportation, and the control of the country's financial system had given the North great advantages over the South at the outbreak of hostilities and had aided in winning the war. Besides agriculture, the principal industries in 1860 were the textiles, clothing, lumber, iron and steel, leather, boots and shoes, flour and meal, sugar refining, paper printing and publishing, carriages and wagons, foundry and machine shop products, and distilled and malt liquors. Industrial life had been put on a war basis and production was directed toward equipping and supplying the military and naval forces.

The North, largely untouched by the destruction and havoc of war, made remarkable progress. Never in the history of the country had there been such a demand for uniforms, munitions, and military supplies of all kinds, for earlier American wars had involved a much smaller number of men. Cotton manufacturing declined somewhat in the North because of a scarcity of raw materials, but woolen production was speeded up at a rapid rate. Military needs gave an impetus to standardization and to mass production, foreshadowing a new age. New sources of mineral wealth were opened up, the new petroleum industry took an important place in the rapid expansion of American economic life, a new and better banking system had been established, and before the war ended a highly protective tariff system was in the making. In spite of the destruction of human and material values, increased taxation, frenzied stock market speculation, and new fortunes of a "shoddy" aristocracy, the Civil War proved to be a stimulus to the economic life of the North.

Many factors were responsible for the increasing industrial tempo in the period that followed the tragic conflict. The general consolidation of business enterprises; the rise of corporate organization; the exploitation of natural resources on a huge scale; the avalanche of technological improvements; enlarging markets; the lack of government restriction and regulation; the vigor of dynamic personalities; improved transportation facilities; and a protective tariff policy; these were the chief factors responsible for the tremendous industrial and business changes. It is not possible to state which were the most important, for they all made contributions and together forged a new pattern of industrial life.

Corporate Organization

The change in the form of business organization made possible large-scale manufacture. This was achieved through the corporate form of business organization. In the early history of the republic, state legislatures began to grant special charters to banks, turnpike companies, canal companies, and even to manufacturing companies. In 1800, there were about 300 business corporations, largely engaged in banking and transportation in the United States, of which 90 per cent had been formed since 1789 and not more than twenty-five were engaged in manufacturing and trade. In the early part of the nineteenth century, a few states passed laws which provided for general incorporation. In spite of this, individual partnerships, usually called "companies," were the predominant forms of industrial organization and no special authorization was necessary for their existence. The business corporation chartered by the state slowly made its way into industry, first by special charter and then by means of general incorporation, although not until after the Civil War did the joint-stock corporation become universal. By 1900, two-thirds of all manufacturing was done by corporations.

The advantages of the corporate form of enterprise over the partnership were obvious. In the latter, the death of a partner resulted in the dissolution of a company and each partner was personally liable for the entire debts of the partnership. The corporation permitted the raising of large amounts of money by issues of stocks and bonds for investment in the business; it limited the risks of the investor to the amount of his stock; the organization was not disrupted by death or retirement; and stocks and bonds could be sold or easily transferred. As the corporate type of industrial organization expanded, it was opposed by many as being undemocratic, monopolistic, and irresponsible to small investors. The protests broadened into a movement against monopoly as corporations were consolidated, trusts were formed, and giant combinations appeared.

The Exploitation of Natural Resources

In the period following the Civil War, natural resources were exploited as never before, contributing to the industrial expansion. Coal, necessary for the production of steam, in the new age of industrialization and railroad transportation, was mined in ever-increasing quantities. It had come into use, however, very slowly. In the seventeenth century, French explorers, including Jolliet, Marquette and Hennepin, were the first to note its presence in this country; they pointed out that there was much of it in the region that is now Illinois. The commercial mining of bituminous coal first began in the Richmond basin of Virginia about 1750 and for many years this was the only important source of coal in America. Wood was abundant and there was no demand for coal except from a few blacksmiths. Partly, also, because of the difficulties of transportation, markets for bituminous coal did not broaden until after 1820. Mines were opened up in Illinois, Maryland, Kentucky, Ohio and Pennsylvania. In 1860, 5,000,000 tons[1] were produced annually and by the end of the Civil War, this had doubled.

Anthracite, or hard coal, was first used by blacksmiths in the Wilkes-Barre region of Pennsylvania in the last years of the colonial period. During the Revolution, anthracite was shipped to the gun-lock factory at the Carlisle Armory. But it was not until the nineteenth century that it came into general use. In 1808, Jesse Fall of Wilkes-Barre, who twenty years earlier had demonstrated its possibilities as a fuel in nail manufacturing, now related it to domestic life by burning it in an open grate with a natural draft. But from 1808 to 1820, the total output was but 12,000 tons. By 1840, nearly 1,000,000 tons of anthracite were mined annually and ten times this amount in 1860.

During the period from 1860 to 1914, both anthracite and bituminous coal were mined extensively, unfortunately by the most wasteful methods. Coal was employed to produce steam for factory purposes; it was used by the thousands of locomotives that carried passengers and freight all over the country; and it was the chief fuel for heating and cooking in homes. As coke displaced charcoal as a blast furnace fuel, large quantities of bituminous coal were used in the form of coke in the iron industry. More than 6,000,000 tons of coke were shipped from the Connellsville region in 1890, and coke ovens were springing up in other sections. By 1914, about 40,000,000 tons of coke were produced in the country annually. In 1890 about 140,000,000 tons of coal were mined in the United States — 45,000,000 tons of anthracite and 95,000,000 tons of bituminous. The total was more than 25 per cent of the production of the entire world. The annual average reached by 1914 amounted to 530,000,000, of which 90,000,000 tons were anthracite and 440,000,000 tons bituminous.

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[1] All statistics relating to coal and coke are given in short tons (2,000 pounds).

The petroleum industry developed at a remarkable rate after the Civil War. But long before "Colonel" Edwin L. Drake drilled the first well in Titusville in 1859, the Indians first and later the white settlers of northwestern Pennsylvania used petroleum as a medicine and at times for lighting, although it burned with a smoky flame and an offensive odor. Oil was obtained from seepages along Oil Creek and the Allegheny River, and occasionally when salt wells were drilled. But it was chiefly sold as a "cure" for rheumatism, headaches, coughs, colds, sprains, toothache and other human ailments. By 1850, Samuel M. Kier, a Pittsburgh druggist, had succeeded in "double-distilling" it and was selling it also as an "illuminant." The first scientific report on the chemical and physical properties of Pennsylvania "rock oil" was made in 1855 by Benjamin Silliman, Jr. at the request of Jonathan G. Eveleth and George H. Bissell. Silliman pointed out the commercial possibilities of the oil. Experiments were also made in refining it. Eveleth and Bissell organized the Pennsylvania Rock Oil Company of New York, which was followed by the Pennsylvania Rock Oil Company of Connecticut. A group of the Connecticut stockholders, under the leadership of James M. Townshend, formed the Seneca Oil Company, leased a plot of land on Oil Creek near Titusville, engaged Drake to supervise the work, and hired two brine-well drillers to sink the well. Work was completed when a depth of sixty-nine and one-half feet was reached; initial production was about twenty-five barrels a day. This marked the beginning of the petroleum industry.

The success of Drake led to an oil boom. Thousands flocked to the region of Oil City. Farmers granted rights to individuals and companies to drill on their lands in return for a royalty of one-eighth to one-fourth of the oil produced; lands were leased by groups of speculators; and those who sought to purchase land found that prices quickly soared. Many of the early wells were drilled by the spring pole method, although in time steam was applied to cable tool-drilling rigs. On the tops of derricks, flags and signs with strange mottoes were placed, including such slogans as "Hell or China," symbolizing the determination of the drillers to strike oil regardless of where it might be found. At first crude oil was transported by teams and barges, but soon railroads were built and pipelines came into use. Mushroom towns sprang up, like Pithole, whose population increased from less than 100 to 14,000 between January and September, 1865, but whose population quickly dispersed to other areas when production declined, leaving it a ghost town. Hundreds of companies were organized, some of which returned rich profits to their stockholders, while a larger number failed completely. During the first few years of the oil boom, buyers and sellers of petroleum gathered in hotels and on streets in Titusville, Oil City, and other centers to carry out their transactions. An Oil Dealers' Exchange was established at Petroleum Center in 1867 and four years later several exchanges were opened in the oil regions. Pennsylvania remained the chief source of oil for many years, but small quantities were also produced in New York, Ohio, West Virginia, Kentucky, Tennessee, and California. After 1884, the production of petroleum in Ohio and West Virginia expanded. Ten years later Wyoming began producing oil, and, at the turn of the century, the development of oil lands had been begun in Texas, Indian Territory (Oklahoma), Kansas, Louisiana and Illinois. Early in the twentieth century, increasing quantities were obtained in Colorado, Indiana, Kansas and Texas.

A new era in the mining of iron began with the opening up of the Lake Superior regions. As early as the eighteenth century, there were rumors of mineral wealth in this section, for Indians had used the reddish oxide from exposed iron and copper ores as pigment for their war paints. Even after the discovery of deposits of ore in 1844 by United States government surveyors near what is now Marquette, few realized the economic importance of this region. Although some small shipments were made to the East prior to 1856, the vast deposits were not widely developed until the period after the Civil War. In the decades that followed the war, many other ranges were opened up in Michigan and Minnesota, including the Menominee, Gogebic, Vermilion, Mesabi, and Cuyuna. The iron deposits of the Lake Superior region vary considerably both in quality and in accessibility. Some are soft and loose; others are hard and fairly difficult to mine. Some are found close to the surface and the soft ones are scooped up from great pits by steam and electric shovels, particularly in the Mesabi region; others occur at greater depths and are mined by shaft and underground methods. The story of the exploitation of these vast deposits include the rapid rise of mining towns, the problems incident to creating a civilization in the wilderness, the mingling of different races, advances in the technology of mining, tragic mine disasters, the superstitions of the workers, serious labor disputes and strikes, unsuccessful attempts to smelt the ores in mining areas, and the development of transporting of ores to the East by way of the Great Lakes.

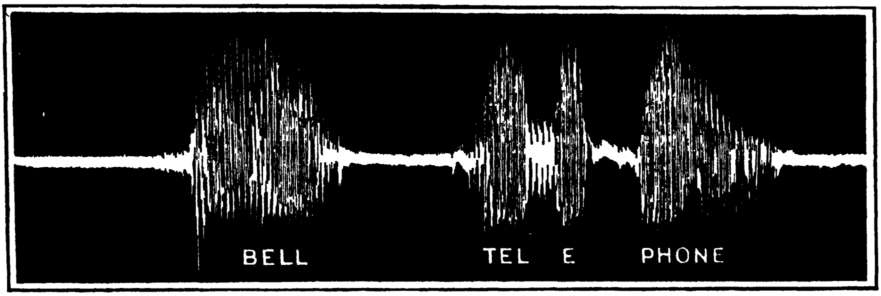
Further west, in the area of the Rocky Mountains, gold and silver mines were opened up and copper, lead, nickel, and other metals were obtained (p. 425). From the time of the Civil War, the exploitation of mineral wealth expanded tremendously. Without the vast quantities of metals and minerals industrial life in the East could not have made such rapid progress. Thus a most remarkable economic development took place at the same time in both the East and the West.

Inventions and Technological Improvements

Thousands of inventions and technological changes reflect the industrial progress of this period. Immediately after the war there was a noticeable increase in patent applications, although invention had not lagged throughout the war. In the decade 1860–1869, the Patent Office granted 77,355 patents; during the years 1890–1899, this number had increased to 234,749. Among the many inventions of the period after the Civil War that greatly influenced social and economic change were the air brake (1869) of George Westinghouse and a number of patents leading to full automaticity in train-braking; barbed wire (1874), invented by Joseph F. Glidden, which made possible the cheap and efficient fencing of vast areas of western lands; the telephone (1876), by Alexander Graham Bell, its acknowledged inventor, which resulted in a new type of rapid communication that brought remarkable changes to social and business life; the phonograph (1877), a basic cultural invention, by Thomas A. Edison; and also Edison's incandescent lamp (1879), which followed quickly the dynamos and arc lights developed by C. F. Brush and Elihu Thomson. The decades of the 1880's and 1890's constituted one of the greatest periods of invention in history. The trolley car, the automobile, the cash register, the transparent film, electrical welding, the steam turbine, and the electric furnace, were invented or introduced at this time.

Even by 1876, remarkable advancement had been made. In that year, the wonders of the industrial progress of the preceding century were shown to the public at the Centennial Exposition held in Philadelphia, marking the one hundredth anniversary of the Declaration of

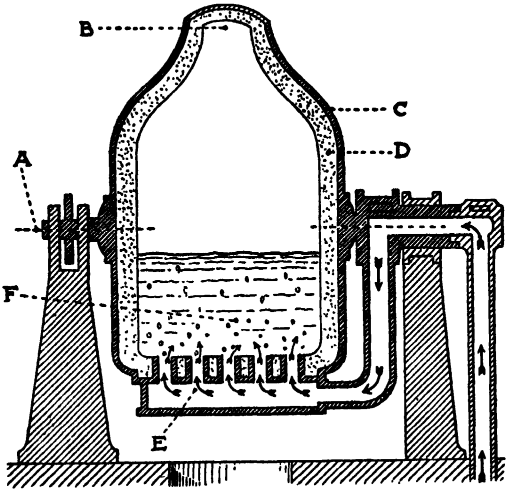
Independence. This was the first great international exposition held in America. Altogether thirty-seven foreign nations constructed buildings and the exposition housed more than 30,000 exhibitors from fifty nations. The seven principal divisions of exhibits were: mining and metallurgy; manufactured products; science and education; fine arts; machinery; agriculture; and horticulture. The Woman's Building, something new in expositions, pointed significantly toward the emancipation of women. Three-fourths of the space in Machinery Hall was taken up by American machinery and mechanical contrivances of all sorts. Visitors were thrilled by the exhibits which varied from small household appliances to the great Corliss steam engine that provided the power for driving the machinery. American ingenuity showed its pre-eminence and demonstrated that the United States was fast becoming a manufacturing nation. Foreign goods and materials also were of much interest and later influenced interior decoration; the superiority of certain types of European goods showed the weaknesses in similar American products. The exposition was revealing and provided a stimulus for the growing social, cultural and industrial consciousness of the United States.



From "The Magic of Communication" by John Mills, Information Department, American Telephone and Telegraph Company

REDRAWN FROM A PHOTOGRAPH OF THE VIBRATION OF AN ELECTRIC CURRENT WHEN THE WORDS "BELL TELEPHONE" ARE SPOKEN INTO THE TRANSMITTER

Thousands of inventions directly affected manufactures during this period and resulted in improved industrial processes. The most significant of these was in the production of steel, which gradually replaced much of the iron which had formerly been used. Until this period, relatively small amounts of blister and crucible steel were produced and were used chiefly in making cutlery and the finer grades of tools. New methods now resulted in spectacular changes. The Bessemer process was invented in England by Henry Bessemer, who applied for an American patent in 1856. William Kelly of Eddyville, Kentucky, who had been working on the same idea for ten years, objected and proved his claim of priority in an American court. He received a patent for his "pneumatic process" in 1857. Devoid of business ability and unable to develop interest in his invention at a time when sectional antagonism brought the forces of industry and the slave plantation to a bloody civil war, he did little more than continue his experiments. While Bessemer could not obtain a patent for his process in the United States, he was able to secure one for his improved converter in 1865. Abram Hewitt and Alexander Holley received the right to manufacture steel from Bessemer, although the former was skeptical of the process. About the same time Ward and Durfee bought the rights to manufacture steel under Kelly's patent and, strangely enough, also acquired the American rights to Mushet's improvement on Bessemer's invention. Both groups began making steel, the former at Troy, New York, and the Kelly Pneumatic Process Company at Wyandotte, Michigan. In 1866, the struggle came to an end when the two groups compromised their conflicting claims and the American method thereafter became known as the Bessemer process.

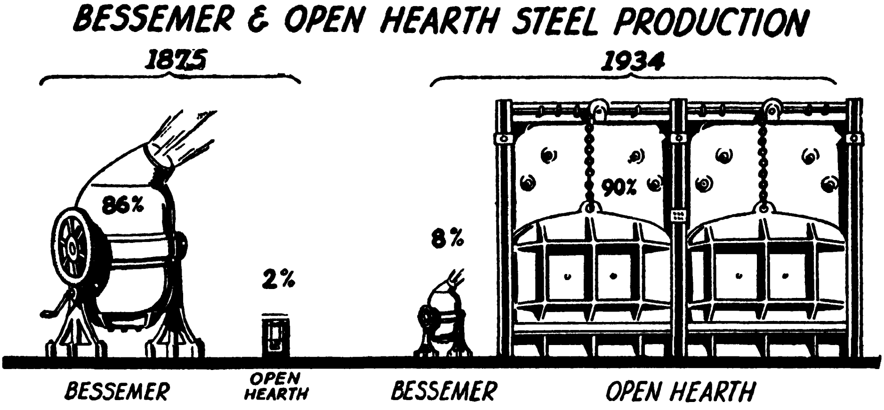


THE BESSEMER CONVERTER

A. Axis upon which the converter turns when it is tilted to pour out the molten metal. B. Spout. It is from this spout that one sees issuing the burst of flame and the outpouring of sparks when the converter is in operation. C. Outer steel casing. D. Lining of siliceous rock or other material. E. Air entering through the holes of the false bottom. F. Molten iron

The new method was relatively simple in principle. By blowing a stream of cold air through molten iron, the carbon was burned out, as an orange-yellow flame tinged with blue burst into a brighter one, accompanied by streams of sparks from the converter. As the flame died down "spiegeleisen," containing carbon, manganese, silicon, iron, lime, zinc and magnesia, was added. During his early experiments Bessemer tried to stop the blast of air when he thought a sufficient amount of carbon and other substances had been eliminated, with the result that too much or too little carbon remained. It was Mushet who improved the process by adding "spiegeleisen," thus permitting the control of the percentage needed for different types of steel. The Thomas-Gilchrist process, which substituted a basic limestone lining for the acid lining of the converter, made possible the application of the process to iron containing a high degree of phosphorus. The extraordinary development of the Bessemer process in the United States put American production of steel ahead of English by 1880.

Another method for making large quantities of steel appeared in the United States about the same time (1868). This was the Siemens-Martin or open-hearth process, a European invention. Much slower than the Bessemer method, it proved to be more advantageous, for it could be watched more easily in the relatively shallow bowl of the large furnace. Thus, samples could be taken from time to time, the flame might be shut off whenever the right carbon content appeared, and the regulation of the molten metal was much easier than in the Bessemer process. After 1908, most of the steel made in the United States was produced by the open-hearth method. By 1900, the total production of steel of all types in this country exceeded 10,000,000 tons annually. In 1914, the manufacture of steel reached 23,485,900 tons. Of this, 17,175,000 tons were Bessemer, 6,221,000 were open-hearth, and 89,900 crucible steel.[2]



COURTESY AMERICAN IRON AND STEEL INSTITUTE. N. Y.

Innumerable inventions increased efficiency in textile factories, and machinery became increasingly automatic. A series of changes led to the Northrop loom in cotton manufacture, which inaugurated fundamental improvements in regard to quick-changing mechanisms and warp-stopping devices. Similar changes occurred in the other textile industries.

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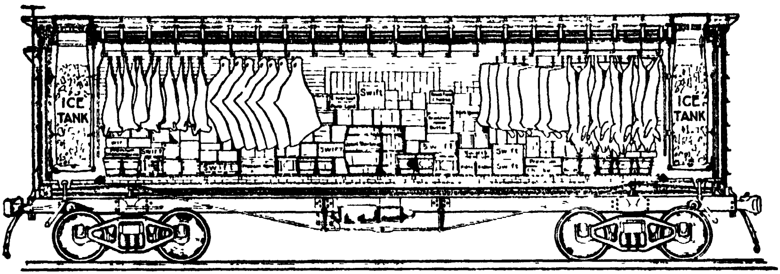
[2] Expressed in terms of long tons of 2,240 pounds.

In the food-producing industries, a few illustrations will suggest the part played by inventions as revolutionary changes were brought about. The "roller process" ground wheat into flour by obtaining a more perfect separation and therefore without discoloration. Inventions in the manufacture of tin can containers led to complete automatic can-making machinery. Machines for making artificial ice appeared and by 1900, about 4,500 patents had been granted in the United States for various processes of refrigeration, 700 of them relating directly to ice machines. Almost all industries were affected by inventions and automatic machinery.



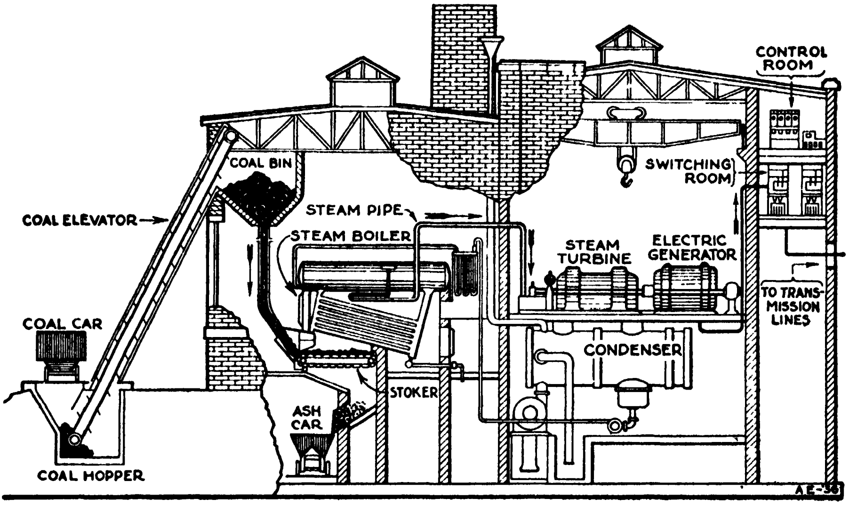
Courtesy of Swift & Company

Refrigerator Car

Improvements also occurred in motive power. During this period steam came into general industrial use. The old-fashioned water wheel became increasingly rare. Among the inventors who improved the steam engine, the name of George H. Corliss ranks high, for his invention of the cut-off mechanism by which valves could be opened and closed instantaneously and automatically was important. Another American inventor, Charles Curtis, combined the ideas of Gustaf de Laval, a Swedish engineer, and Charles A. Parsons, an English engineer, in producing an improved steam turbine. In the turbine, steam was forced directly against the "buckets" or vanes on a spindle revolving in a cylinder, rather than against a piston; hence no large flywheel was necessary. Next to the steam engine, the gas engine was used, deriving its power at first from exploding a mixture of coal gas with air. Many different types of coal gas engines appeared, which paved the way for the gasoline engine, making possible the modern automobile. In 1898, Dr. Rudolph Diesel, a German scientist, obtained a United States patent for his engine which could use a heavier and cheaper grade of oil, and in the twentieth century the Diesel engine appeared. The new age was also marked by the use of electricity.

Enlarging Markets

A most important factor in the expansion of industry and business was the continually increasing demand for products of all sorts. Population increased tremendously through the growing birth rate and immigration. In 1860, the population of the country was 31,443,000; by 1900, it had reached 75,995,000; in 1910 it was 91,972,000; and in 1920, 105,711,000. The continual stream of immigration supplied the demand for laborers necessary for industrial expansion and at the same time built up markets which would take the increased production. Many immigrants passed by the industrial regions and joined those from the East who took up homesteads in the West, thus creating new markets for manufactured goods in the agricultural regions of the country. Improvement in living conditions also helped the domestic market. The ever-growing population was an essential factor in the expansion of factories, shops, mines, railroads, and business generally.



Power Plant Where Electric Current Is Produced

The diagram shows coal being carried by a belt from a railroad car to the bin. A mechanical stoker feeds the fire in the furnace. As the coal burns, it boils water and makes steam. The steam is piped to the turbine, and turns the vanes. The turbine whirls the generator, which produces electricity. The current passes over heavy wires to the switching room, controlled from the room above. From there electricity goes out over transmission lines placed in underground cables. Finally the current reaches the users.

The fact that interstate commerce could be carried on unhampered by custom duties or racial prejudices was important in the development of industrial life in America. Goods were transferred from section to section without much regulatory hindrance. The economic growth of the nation gave rise to a movement for uniform state legislation which was partly achieved in the field of commerce during this period.

Foreign markets also expanded. Between 1860 and 1914, American foreign trade increased approximately eight times in value. Exports of crude materials grew in volume but not in proportion to the increase in export of other commodities. Exports of manufactured or semi-finished goods in 1871–1875 were 20 per cent of total exports; in 1911–1915, they were 46 per cent. The increasing exportation of manufactured goods, together with the high protective tariff policy, resulted in a relative decline in exports to Europe. In 1881–1885, almost 81 per cent of American exports went to Europe; in 1911–1915, only 61 per cent. New markets opened in Asia, Canada, and Latin America. In addition to wheat, cotton, grain, petroleum, animal products, tobacco, lumber, naval stores, and metals, manufactures of all sorts were exported.

A Policy of Tariff Protection

Another factor which aided industry and business was tariff protection. The years prior to the Civil War were marked by low tariffs in spite of the struggle by industrialists for protection. This was due principally to the fact that the agricultural sections, especially the South, dominated. With the Civil War, however, the balance shifted. The rising industrial East now wielded power, and a policy of protection was inaugurated and maintained.

The Morrill Tariff, passed in 1861 on the eve of conflict, increased rates for the purpose of obtaining more revenue for the struggle. From time to time during the war, custom duties were raised, so that at its close many schedules were highly protective. While at first the necessity for more revenue was the motive for tariff increases, the argument was later advanced that domestic industries, which had to pay heavy war taxes, should be protected from competition with foreign goods by increasing custom duties.

After the war, the question of the tariff policy again became controversial. In the agricultural parts of the West, sentiment was strongly against the high levels that had been reached. When the proposal to reduce the tariff was made in Congress, an outcry arose from the manufacturing interests and every effort was put forth not only to maintain the high wartime duties, but to increase them on behalf of special industries. Swarms of lobbyists descended on Washington, led by such men as John L. Hayes, secretary of the National Association of

Wool Manufacturers. In Congress, William D. Kelley of Pennsylvania championed extreme protection and his persistent support of duties on iron won him the sobriquet, "Pig Iron Kelley." On the other hand, in order to oppose a high tariff policy, the American Free Trade League was formed and included such influential figures as Carl Schurz, Horace White, and E. L. Godkin, editor of *The Nation.* Many Congressmen took the middle course and approved the sentiments uttered by John Sherman that Congress should "dismiss to future generations extreme ideas of free trade and protection, which are inconsistent with a revenue system." The conflict of opinion within both parties resulted in failure to make any drastic modifications of any kind in the trend that had developed during the war. The high level remained.

The changes of 1869 and 1870 in no way affected the high tariff policy. Some duties were slightly reduced, but increases were made on copper, marble, flax and a few other commodities, while a small reduction on pig iron was offset by an increase on steel rails. The discontent among western farmers and the growth of the Liberal Republican movement in 1872 with its advocacy of a reduced tariff frightened the protectionist leaders in Congress to such an extent that on the eve of the political campaign of that year a horizontal cut of 10 per cent was made. In addition, duties on tea and coffee were abolished and the free list of raw materials was slightly extended. This hasty and ill-advised law resulted in difficulties. The loss of duties on tea and coffee in the years of industrial depression that followed cut off an annual income of $20,000,000 and customs receipts as a whole fell from $216,000,000 in 1872 to $163,000,000 in 1874. In 1875, duties were restored to their former level where they remained for almost a decade.

Many factors contributed to the failure of tariff reform. The preoccupation of Congress in the struggle with President Johnson in the reconstruction of the southern states; the repeal of internal revenue taxes and the fear that a simultaneous reduction of import taxes would seriously affect the government's revenue; the fact that party lines were not clearly differentiated in regard to the tariff; the weakness of the dishonored South, which was not at first fully represented in Congress; and the growing belief of many Americans that high tariffs were necessary to prosperity, resulted in a protective policy, which became a permanent political issue.

In 1882, the government was in an unusual financial position, for there was a large surplus in the treasury. Alignment in Republican and Democratic ranks over the tariff was not yet clear-cut, for a group of eastern Democrats, chiefly from Pennsylvania and New Jersey, did not favor reduction, while a number of Republicans in the West did so. President Arthur, who succeeded the martyred Garfield, recommended tariff revision. Disgusted with the earlier "tinkering" with the tariff, desirous of avoiding the persuasion and threats of the lobbyists, and convinced of the inequity of a horizontal reduction, a majority in Congress authorized a tariff commission to recommend changes. This was a new method of approaching the tariff. The commission appointed by President Arthur, however, was made up of protectionists with John L. Hayes, of the National Association of Wool Manufacturers, as its chairman. It seemed obvious that the high tariff was to be reformed by its friends. The commission junketed around the country, holding hearings at more than a score of cities and examining several hundred witnesses. Its report was a surprise as it reached the conclusion: "No rates of defensive duties except for the establishment of new industries which more than equalize the conditions of labor and capital with those of foreign competitors can be justified." It recommended reductions up to 50 per cent, but the average was from 20 to 25 per cent. However, the recommendations on the whole applied to necessities rather than to luxuries, and to raw materials chiefly instead of manufactured goods. As Congress got busy on a bill, lobbyists poured into Washington to guard the interests of pig iron, steel, sugar, wool, and other products. The measure provided for a further reduction of internal revenue taxes. In regard to customs duties, the law of 1883 in general reduced rates only about 4 per cent. Duties were increased on some commodities and reduced on others. *The Nation* condemned the law and characterized its schedules as "taking a shaving off the duty on iron wire and adding it to the duty on glue." The measure was criticized by all groups and rightly, for no basic changes were made; even the findings of the commission were treated with contempt and were entirely discarded. Three men destined to be influential in future tariff issues were prominent in the debates on the measure: Senator N. W. Aldrich, T. B. Reed, and William McKinley. The last-named, however, refused to vote for it on the ground that it was far too low.

In 1885, President Cleveland, the first Democratic party President since Buchanan, recommended a reduction of the tariff and two years later devoted his entire annual address to Congress to it. This novel message surprised the country. He stated that information on the various aspects of the state of the nation could be found in the reports of the various departments and then plunged into a discussion of the tariff which he declared was a system of "unnecessary taxation, . . . vicious, inequitable and illogical." He stressed the fact that the income of the government exceeded its needs and that the surplus was increasing. He maintained that the high tariff policy raised prices of all goods; that it was not needed to keep up wages since only 2,630,000 workers out of 17,392,000 were employed in protected industries; that it injured the farmer as well as the laborer; that it increased prices of raw materials and hindered export trade, and that its complicated schedules were senseless. He did not advocate free trade, but insisted that a drastic reduction of the tariff was necessary. He emphasized the importance of the subject with the words: "It is a *condition* which confronts us, not a theory." The critics of the President insisted that his plea was not for reforming a defective tariff but for destroying the protective system.

The "Paris message" of the Republican leader, James G. Blaine — an interview cabled from Paris to this country — represented the answer of the opposition party, for the principles that Blaine set forth were generally accepted by Republicans. He demanded the retention of high tariff duties in the interest, as he put it, of the American laborer, whose wages were far higher than those of European workers, largely because of protection. He continued that tariff reduction would seriously injure the whole country, especially the farmers of the West and the South. He suggested that, in order to keep the surplus down, the whiskey revenue be spent on coast fortifications; that the tax on tobacco — "the poor man's luxury" — be abolished, and that any federal surplus be distributed among the states where it might be used to lighten the taxes on real estate.

Following Cleveland's message, the Mills Bill, patterned after his suggestion, was introduced into the House. The debates were spectacular and a $10 suit of clothes was the center of mathematical calculations of the actual cost of the tariff to the working man. The bill passed the House with only four dissenting votes among the Democrats. The Republican-controlled Senate refused to consider the bill and attempted to work out a measure of its own but without success.

The tariff was a dominant issue in the campaign of 1888. The Republicans were completely victorious and began work to redeem their campaign pledges. The McKinley tariff of 1890 was the result. Throughout the debates the protectionist philosophy was developed to its highest point. With the aid of the rules of "Czar" Reed, the Speaker of the House, and of the votes of western Senators who received in exchange eastern votes for the Sherman Silver Purchase Act, the law was passed and an acme of protection reached. While duties on steel rails, steel plates, and iron were slightly reduced, and a number of commodities of little commercial importance were added to the free list, the McKinley tariff of 1890 increased duties on wool, woolen goods and dress goods, especially on the finer grades. Higher duties were imposed on linens, silk laces, plush goods, cutlery, and many other types of manufactured goods. A political gesture was made to the farming interests when the protective principle was applied to agricultural products, but the duties levied on wheat, corn, potatoes, flax and other products were not of great importance to the farmer, since few agricultural staples were imported. To encourage the manufacture of tin plate, duties of about 70 per cent were imposed (p. 372). In order to reduce the government's income, raw sugar was to be admitted free; to placate domestic sugar growers a bounty of two cents a pound was granted on the production of sugar within the United States. A reciprocity clause provided that the President alone could impose duties on sugar, molasses, tea, coffee, and hides if he considered that any country exporting these commodities to the United States imposed unjust duties on the products of the United States. Reciprocity, therefore, became a club to force Central and South American nations to grant concessions and make agreements, although it was adopted largely through Blaine's influence as a part of his plan for a Pan-American commercial union.

The McKinley tariff measured up to the expectation of its framers; in fact, in several respects it worked in a way undreamed of by them. The loss of revenue on sugar and the prohibitory rates on some schedules, together with the lavish expenditures of Congress, wiped out the surplus in two years; a deficit appeared as the country was plunged into the Panic of 1893. Other clauses worked out to better advantage. A new tin-plate industry was born and made remarkable progress. The reciprocity clause resulted in agreements with Brazil, the Dominican Republic, Cuba, Puerto Rico, Guatemala, Salvador, the German Empire, some of Great Britain's colonies, Nicaragua, Honduras and Austria-Hungary. But the high rates of the tariff, reflected soon after its passage in higher retail prices, together with objection to many parts of the law, caused widespread dissatisfaction. The election which came a little more than a month after the measure went into effect brought disaster to the Republicans, who lost control of the House; even McKinley himself was one of the defeated candidates. In the following presidential campaign and election of 1892, the Democrats were victorious.

The change of political party was responsible for the Wilson-Gorman act of 1894. For the first time since the Civil War, the Democratic party had majorities in both Houses of Congress and also controlled the presidency. The majority in the Senate, however, was slight. Since the Democrats had come into power largely on the tariff issue, Cleveland, once again President, urged the downward revision of the tariff. It was an unauspicious time for a drastic change for several reasons. including a government deficit, falling revenue, the industrial depression, uncertainty on the part of business men, and continued labor unrest. The measure, as it was brought into the House, provided for considerable reductions on most schedules. Because of the financial situation of the government provision was made for a tax on incomes over $4,000. In the Senate the bill was so amended by those desiring to protect the industries of their constituents that it was completely changed from its original form. The Republicans ridiculed these attempts of the Democrats at tariff making. One Republican Senator stated: "The framers of the Wilson Bill having classified hydraulic hose among articles of wearing apparel will no doubt remodel that extraordinary measure so as to include hydraulic rams and spinning mules in the live stock schedule." In the Senate, 634 changes were made, restoring the protective principle throughout and outweighing any principle of reform. In spite of the attitude and opposition of the President, the House agreed to the changes. Cleveland did not sign the bill, but permitted it to become law without his signature.

A Republican National Committee cartoon, by Leon Barritt, used in 1904

"THE FREE TRADE BIRD BUILT ITS NEST IN EVERY CHIMNEY"

With the change of party control in 1897, another tariff was made.

Four years of depression had resulted in a Republican victory. Although the chief issue in the campaign had centered in the question of the free coinage of silver versus the gold standard, the victors began work on the tariff. The Dingley law of 1897 advanced rates to the highest in American history, but through no merits or faults of its own, it marked the beginning of good times. In the years that followed congressional attention was turned to questions of imperialism and other issues. Not until the political campaign of 1908 did the tariff issue again become really important.

From time to time during the administrations of Theodore Roosevelt rumblings against the protective tariff were heard in the Middle Border. The "Iowa Idea" was widely accepted in that part of the country. It purported that the tariff was the mother of trusts and that the way to prevent monopolies was to reduce it. The high cost of living and the tariff were discussed in the political campaign of 1908; both major parties promised, if elected, to revise the protective tariff. At the very beginning of his administration President Taft called Congress into special session. In accord with his recommendations a bill providing for a much lower tariff passed the House. Under Senator Aldrich's leadership, the Senate pounced upon the measure and finally made 847 amendments to it, most of them for increased duties. In spite of the opposition of the rising "insurgents" under Robert M. La Follette of Wisconsin, the policy of high protection continued. The Payne-Aldrich tariff of 1909 made a few reductions and abolished the duty on hides and some other commodities. But the average rate on dutiable goods was almost the same as under the Dingley measure it superseded. The law empowered the President to impose a maximum scale of duties on imports from countries which discriminated against American trade; it provided for a tariff board to aid the President in penalizing such imports; and it levied a low tax on the net earnings of corporations. The board disappeared after three years, having made only three reports.

The first important change in the tariff policy since the Civil War was made in 1913, when the Democratic party redeemed its pledge to reduce the tariff. President Wilson did not ask Congress for a free trade measure. He suggested adherence to the revenue principle and cautioned against sudden and ruinous reductions without giving business time to make adjustments. The Underwood tariff brought the average rates down to about 30 per cent on dutiable commodities. On 958 articles the duties were reduced; on 307 they were unchanged; and on eighty-six — such as chemicals — they were increased. Reductions were made on some agricultural products and others were placed on the free list in an attempt to decrease the cost of living. The duty on sugar was to be gradually reduced and taken off entirely in 1916. An income tax clause, now made possible by the Sixteenth Amendment, provided for additional revenue. The board, which had been allowed to lapse, was revived in 1916 through the appointment of a bi-partisan commission.

The Rise of Some Key Manufacturing Industries

After the Civil War, the age of iron gave way to the age of steel. Prior to this period the small amounts of blister and crucible steel, painfully and expensively produced, were used chiefly in making cutlery, the best grades of tools, and different types of weapons. The Bessemer and open-hearth processes revolutionized the iron industry and provided material that could be used for a variety of purposes and at low cost. Advances were made in the production of steel so that it could be made soft and ductile or hard enough to scratch glass. It could be made tough and resilient for springs or pliable for tin cans; it could be made strong enough to be rolled into great structural beams for skyscrapers or drawn into wire for a fine-mesh wire cloth. It could be rendered magnetic or non-magnetic and also resistant to heat, cold or rust. Steel came to be woven into the very fabric of America's material civilization as railroad trains, ocean vessels, skyscrapers, factories, bridges, pipe lines, power lines, machinery, and automobiles were made of it.

Iron, of course, was necessary in the production of steel. The principle of making pig or cast iron by smelting it in tall furnaces did not change. The small stone, cold-blast, charcoal furnaces gave way to larger ones using coke as a fuel. The new ones were built of steel and many towered 100 feet or more. They possessed four huge heating stoves, blowing engines that delivered thousands of cubic feet of blast each minute, many tuyeres, an array of dust arresters, gas washers, and automatic ore and coke handling machinery, all essentials of the giants of modern metallurgical devices. At many furnaces, the centuries-old method of casting pig iron in sand continued, but in the larger works, the molten iron from the blast furnace was run into large ladles and moved immediately to the open-hearth furnace or Bessemer converter to be made into steel. After having undergone one of these processes, or a duplex process — a combination of both — the molten steel was poured into molds.

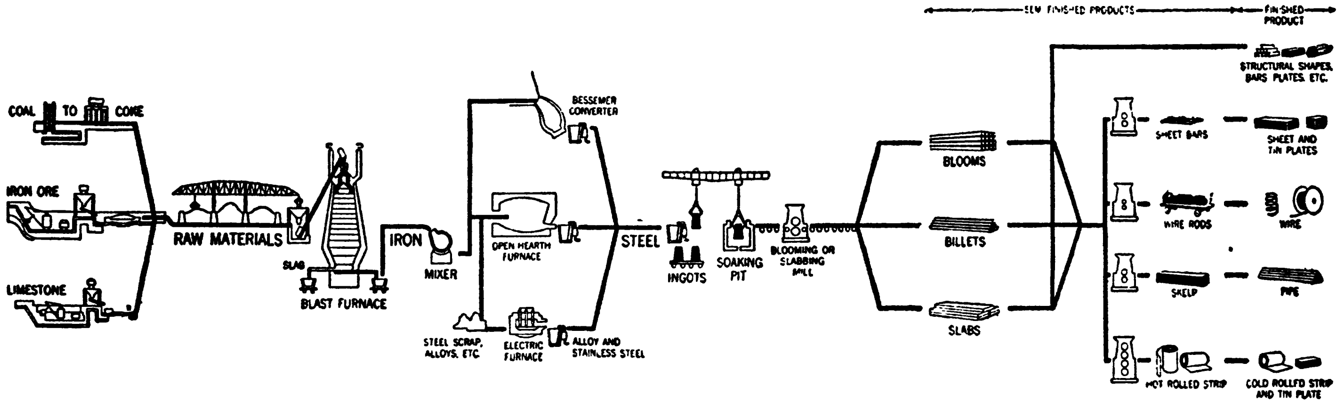
After a strong crust developed on the steel, the molds were pulled on cars to the stripper, where they were removed, leaving white-hot ingots. These were taken to the gas-fired soaking pits where their molten interiors gradually solidified by cooling, while the outer parts were reheated. After equalizing the temperatures of the interiors and exteriors, the hot ingots were ready for rolling directly into rails, plates, slabs, billets and other shapes before being allowed to cool. Since 1914, the trend toward integrating the processes within one plant has continued. Modern steel works include blast furnaces, Bessemer converters, open-hearth furnaces, rolling mills, coke ovens with by-product plants, as well as foundries and machine shops.

At the coke ovens in large steel plants and elsewhere, the by-products of coal became exceedingly important. Rich coal-gas, used as fuel in the steel furnaces, was the main by-product of coke produced at mills. Coal tar, also, became important, for it was used not only for building purposes, but from it a large variety of beautiful dyes and fragrant perfumes could be manufactured. Among many other derivatives of coal tar, such chemicals as ammonia, naphthaline, benzol, and phenol were manufactured. Research in recent years has also led to medical derivatives of many kinds, such as novocaine, an anesthetic; and sulfanilamide, sulfapyridine and sulfathiazole, used in treating pneumonia, meningitis and septicemia. An endless variety of products came to be made from the gases and vapors liberated when coal was coked, which formerly were permitted to escape in smoke. In addition to dyes, perfumes, and medicines, products such as T.N.T., nylon, aspirin, billiard balls, smelling salts, and fertilizers were made from coal, which formerly was valued only as a fuel.

The Pittsburgh-Youngstown-Cleveland area came to be the heart of the iron and steel industry of the country. Here, and in the Buffalo, Chicago, Detroit, and St. Louis regions, iron and steel were produced from the ores of the Lake Superior region. In the coastal area north of Baltimore, most of the ores used were local or were imported from Chile, Cuba, and Sweden. The Birmingham, Alabama, district was unique in that ore and coking coal were adjacent; hence a minimum of transportation was necessary. As a result, large quantities of pig iron was exported from the area, although much steel also was produced there. In the Tennessee region and in scattered far western areas, such as Pueblo and Provo, local ores were largely used.

Many industries developed in connection with the production of steel. One of the most striking was the manufacture of tin plate. Small quantities of tin plate had been made in the late colonial period as small hammered iron sheets were coated with tin obtained from England. The industry made no progress and died in the early nineteenth century. Quantities of tin plate were imported chiefly from Great Britain; these increased greatly from the period beginning with the

FLOW CHART OF STEELMAKING



Source United States Steel Corporation

Courtesy of the National Association of Manufacturers

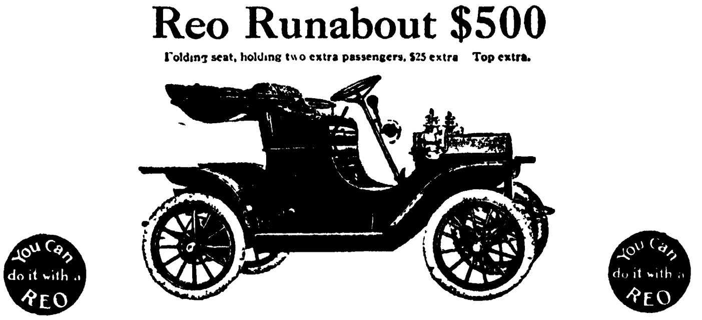
Civil War. Attempts were then made to establish a tin plate industry in the United States. Between 1872 and 1874, American rolling mills for making tin plate and terne plate (coated with an alloy of lead and tin instead of tin alone and used largely for roofing) were established by the American Tin Plate Company at Wellsville, Ohio; Rodgers and Burchfield at Leechburg, Pennsylvania; and the United States Iron and Tin Plate Company, at Demmler, Pennsylvania. Because of the low duty on tin plate, the companies could not compete with foreign importations. All the plants stopped operating before 1878.

The McKinley tariff of 1890 placed a duty of 2.2 cents a pound on imported tin plate, not to protect an industry but to create one. The law provided that the duty should cease after 1897 unless domestic production reached specified amounts. The provisions of the McKinley Act relating to tin plate attracted capital, machinery, and workmen from South Wales and within a few years, the American tin plate industry was established. By 1914, large amounts of American capital had been invested in the industry, which surpassed the production of tin plate in Great Britain. By this time, United States had become the leading consumer and producer of tin plate in the world.

The growth of the canning industry was largely responsible for the development of the tin plate industry, as meats, fish, poultry, soups, vegetables, fruits, milk, jams, and beverages, as well as oil, polish, and tobacco, were sold in tin containers. The use of cans for preserving foods dates back to the beginning of the nineteenth century. The rise of urban centers gave an impetus to this means of preserving and distributing food and other products. Among the improvements in the manfacture of tin cans, the drop press, invented by Allen Taylor in 1847, and the combination press of Henry Evans, a few years later, were important. The lock seamer was invented in 1869 and the automatic soldering of can ends in 1876. The first complete automatic can-making machinery was put into operation in 1885 in Baltimore. By 1940, there were many different companies in the United States making cans for sale in addition to many that produced cans for their own use. The American Can Company was the leading producer.

A new industry which experienced a most spectacular rise was the automobile industry. As early as the eighteenth century men had attempted to operate steam-propelled vehicles on the city streets. In the United States, Oliver Evans was one of the most important of the earlier pioneers in this field. As steam railways developed, attempts were made in several European cities to apply steam to stage coaches, but high toll charges and restrictive legislation interfered with the success of such ventures. During the latter part of the nineteenth century much progress was made in Germany in producing self-propelled vehicles. In 1876, A. N. Otto built a four-cycle internal combustion hydrocarbon motor, based partly on the ideas of Beau de Rochas, a Frenchman; in 1886, Gottlieb Daimler exhibited the first motor tricycle; and the next year Carl Benz produced the first automobile driven by a gasoline engine. In the years that followed, many in Europe and America experimented with "horseless carriages," using steam, electricity, illuminating gas, vaporized oil, gasoline, carbonic acid gas, and alcohol as motive power.

As early as 1879, George B. Selden of Rochester, N. Y., applied for his first patent for a gasoline vehicle, which he purposely kept pending for many years; but it was not until 1892 that Charles Duryea and his brother Frank drove the first successful American gasoline car down the streets of Springfield, Massachusetts. The next year Henry Ford of Detroit made twenty-five miles an hour in a gasoline car. During the depression of 1893–1897 advances were made in producing vehicles run by electric batteries, steam power, or gasoline. Individuals like the Duryeas, Ford, Elwood Haynes, R. E. Olds, Alexander Winton, and Charles P. King made contributions to the new type of vehicle. Men worked in homes and workshops on new ideas and many patents were obtained. Progress was also made in Europe, where by 1895, cars known as Benzes, Daimlers and Panhard-Levassors were being sold and some exported to America.


Reo Runabout $500
Folding seat, holding two extra passengers, $25 extra Top extra.
You Can do it with a REO
You Can do it with a REO

An Automobile Advertisement of 1909

At the end of the century about 8,000 cars were registered in the United States. These included not only gasoline cars, but smooth running, hissing steamers and also silent electric cars, which were popular with women because it was not necessary to crank them. The merits of cars — gasoline, electric, and steam — were expounded and debated by their adherents, but in time gasoline automobiles proved to be the most practical. Steam and electric cars had serious faults. The former carried tanks of water which had to be heated before starting; the latter had a limited range because batteries had to be recharged at frequent intervals.

As the modern automobile emerged, it passed through many revolutionary changes. At first cars were open and therefore could not be used in bad weather; wheels were large and the bodies of the cars high off the ground, for engines were underneath and not in front; spark and throttle levers were placed on the steering post, for there were no self-starters or foot throttles; and high pressure tires and hard springs made riding uncomfortable. By 1914, self-starters and other improvements were introduced. In the meantime, Henry Ford was experimenting with low-price cars. In 1903, he organized his third company, the Ford Motor Company, and produced a two-cylinder car retailing from $850 up. He bought the engines and parts from other manufacturers, and assembled them in his small plant. In 1907–1908, he decided to concentrate on cheap cars and designed runabouts ranging in price from $600 to $750. Sales jumped amazingly. In the autumn of 1908, he introduced the Model T car, which was inexpensive, simply built, and easy to repair. For many years Ford cars outnumbered all others on the highways.

The early automobile companies started on small amounts of capital. At first many of them did very little manufacturing, for they only assembled parts that were bought elsewhere. In time, as their capital grew, many produced their own parts. The Ford Motor Company began business with a capital of $28,000; the Hudson Motor Car Company with much less. Mortality among the companies was high. Of the sixty-nine companies producing cars in 1910 only eight survived in 1940.

The application for a patent on a gasoline-propelled vehicle, which George B. Selden kept pending from 1879 to 1895, was granted and came into the possession of the Electric Vehicle Company. This company began infringement proceedings against automobile manufacturers, who formed the Association of Licensed Automobile Manufacturers and agreed to pay royalties. Henry Ford, however, refused and he was sued. Eight years of litigation followed. After appeals, the court ruled in 1911 that the patent was not being infringed. The decision killed the threat of monopoly in the industry; it gave the pioneer automobile builders a healthy fear of patent legislation; and it led to the cross-licensing agreements which have kept the industry relatively free from patent disputes.

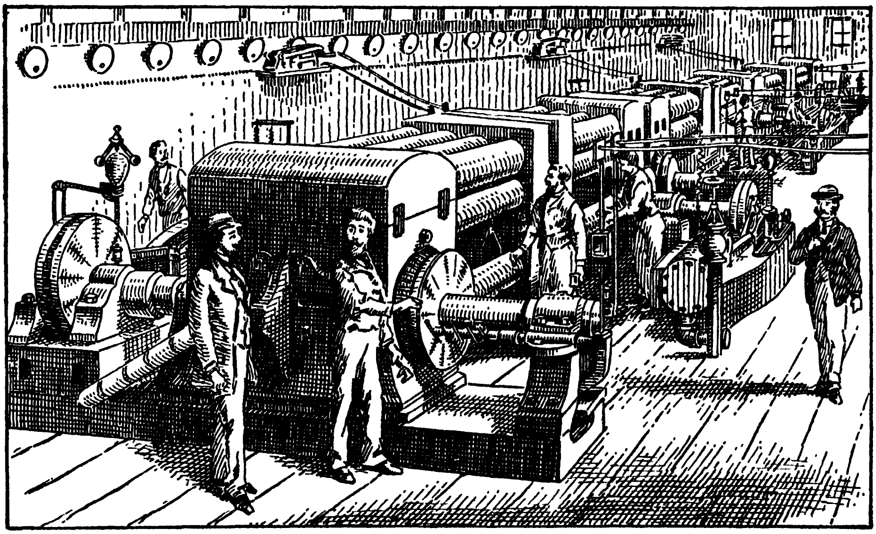
The years 1910–1911 marked a depression in the automobile industry, and twenty American firms went out of existence. Through improved production techniques, better sales plans, and drastic price reductions, recovery was relatively rapid among the survivors, and new groups entered the field. In 1914, eight-cylinder engines were placed on the market and were followed by twelve- and sixteen-cylinder motors, suitable only for large and expensive cars. The material prosperity enjoyed by most people during the First World War permitted large numbers to buy cars. After the war, the installment plan of car purchasing was broadened and provided a tremendous stimulus to buying by the low income groups. By 1920, there were eighty-four companies engaged in producing automobiles. In that year, 1,905,560 passenger cars valued at $1,809,000,000 were sold. Automobile manufacture expanded rapidly. Production reached a peak in 1929, when 4,587,400 cars and 771,020 trucks were manufactured and distributed. The depression seriously affected the industry, but after 1933 steady progress was again made. In 1941, 3,744,300 cars and 1,094,126 trucks, having a wholesale value of more than $3,000,000,000, were produced and sold.

Another industry in which amazing development occurred was the electric industry. Early pioneers like Benjamin Franklin in Philadelphia, Luigi Galvani in Bologna, Alessandro Volta in Pavia, Humphry Davy in London, André Marie Ampère in Paris, and Michael Faraday in London set the stage for the use of electricity. By 1870, a practical generator appeared, largely the result of the work of Z. T. Gramme of Belgium. Eight years later, Charles F. Brush of Cleveland, Ohio, devised an arc lamp and an ingenious type of generator for furnishing its current. Edward Weston of Newark, New Jersey, and Elihu Thomson of Philadelphia achieved success in the same field. By 1880, several cities had installed arc lights for street lighting and for advertising purposes. The large, sputtering arc lights, however, were not suited for many indoor uses, but when Thomas Edison perfected the smaller incandescent light by sending a current through a carbonized cotton thread in a sealed glass tube, he made possible the era of domestic electricity.

In 1882, Edison built the first commercial generator station at Pearl Street, New York. It contained six dynamos, the largest about 125 horse power. It first served fifty-nine users, but because of the limitation of its low-voltage current its power could not be sent more than a mile. In the meantime, George Westinghouse had applied electricity to the operation of railroad signals and had built some of the first electric lighting generators. He became interested in the secondary generator system, a product of European experimentation for the long-distance transmission of electricity; from this he developed the alternating current system. The first experimental plant was put into operation in Great Barrington, Massachusetts, in 1886; later in the same year the first commercial alternating-current lighting plant was installed in Buffalo. A "battle of the systems" — direct and alternating — followed. The amazing electrical displays produced by alternating current in the Chicago World's Fair of 1893 demonstrated the superiority of that form of current. Electrical engineers began to combine the two systems so that both could be used to advantage. Most of the current produced in the United States in the years that followed was alternating, although as progress was made in generating electricity, a considerable portion of it was transformed into direct current for electric railways, electro-chemical industries, and other uses where direct current was more advantageous. One of the landmarks of the electrical industry was the harnessing of Niagara Falls in 1895. In that year, the first of three 5,000 horse power alternating-current generators was placed there. Not only did it demonstrate the possibilities of electrical development, but it also stimulated the use of water power instead of steam for generating electricity.

At first, electricity was used largely for lighting. Soon it was applied to many other uses. Several attempts were made in different parts of the East to develop electric railroads. The first commercially successful traction systems were established in Binghamton, New York, in 1886 by Leo Daft, and in Richmond, Virginia, in 1887 by Frank J. Sprague. By 1902, there were 22,500 miles of electric urban and interurban railways in the United States; by 1912 the mileage had increased to 41,000. Early in the twentieth century, some steam railroads became interested in electrifying sections of their systems. The Baltimore and Ohio at Baltimore, the Pennsylvania in New York, and other railroads, operated trains from current obtained from a third rail. In 1907, the New Haven Railroad was electrified by using an alternating current supplied by overhead wires. This plan was generally adopted by other railroads for electrifying parts of their systems. The flexibility and relative simplicity of electric operation and the increased power obtained were the chief reasons for the adoption of the new power by many railroads. Much more slowly was electricity used on the sea. It came into general use for lighting vessels, but marine engineers long regarded it as unsuitable for water motive power. An impetus was given to its use in the marine field when the United States naval collier *Jupiter,* equipped with electrical propelling machinery and steam turbine generators, was commissioned in 1913. Little progress, however, was made in the use of this form of power on merchant vessels, for steam or Diesel oil engines were preferred.

During the period of experimentation, electricity was used for driving such machines as pumps, fans, and printing presses, but not until after 1888, when Nikola Tesla developed polyphase alternating current generation, did electric power find general use in industry. As motors were improved in speed, power, and mechanical characteristics, they came to be used to drive all types of machinery. In addition, when cheap electricity became available through the use of water power, the electro-chemical industry was given an impetus, especially the production of aluminum, graphite, abrasives, chlorine, alloys and other materials. The use of electric heat for treating and baking processes in industry originated during this period.

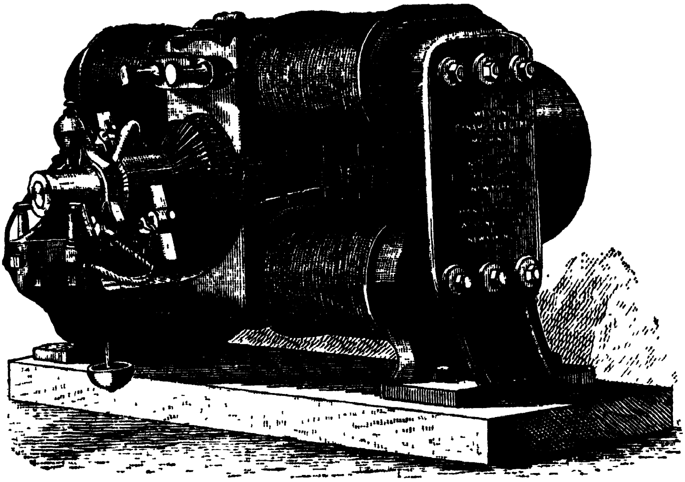


Redrawn from a drawing in "Scientific American," August 26, 1882

THE FIRST EDISON ELECTRIC LIGHTING STATION, PEARL STREET, NEW YORK

From the beginning of the twentieth century electrical devices of many kinds found their place in many homes. As early as 1880, Edison suggested that an electrical motor weighing about eighty pounds could be used for driving a sewing machine, but many years passed before motors were applied to domestic sewing machines. The electric iron and other household appliances were slowly accepted. After 1914, these together with the electric refrigerator, devices for electric heating and cooking, and automatic mechanism for controlling and feeding coal and oil furnaces were increasingly used.

The story of electrical manufacturing centers in two important companies, the Westinghouse Electric Company (the Westinghouse Electric and Manufacturing Company), which began business in 1886, and the General Electric Company, incorporated in 1892. While many small pioneer companies developed, most were eventually absorbed by one or the other of the two organizations. The Westinghouse Company went into receivership in 1907 but was later reorganized. By 1914 there was a total of 1,030 establishments in the country chiefly engaged in the manufacture of machinery, apparatus, and supplies for use in the generation, transmission or vitalization of electrical energy. About 150,000 were employed in the industry and net products exclusive of telegraph and telephone equipment were valued at $317,671,000. In 1940, the total value of electrical machinery and apparatus produced was close to $2,000,000,000.



A WESTON DYNAMO OF 1890

CHAPTER XVI

Industrial Consolidation and Regulation

The Rise of Industrial Combinations

The combining of small individual enterprises into large corporations was the first step in the direction of the unification of industry; the growth of large corporations was the second. But concentrated control went beyond mere incorporation. Pooling arrangements, price fixing agreements, and centralized selling were forms of loose combinations. The trust and the holding company were other important devices that appeared with combinations and monopolistic practices in industrial enterprise.

The first great monopolistic industrial corporation was the Standard Oil Company, which wove a pattern for others to follow and first used to this end the device known as the trust. John D. Rockefeller began his meteoric career in oil in 1862 when he made a small investment in one of the new Cleveland refineries. A company of his own followed in 1865. Five years later, the Standard Oil Company was incorporated in Ohio with a capital of $1,000,000, the original stockholders including John D. Rockefeller, William Rockefeller, Henry M. Flagler, Samuel Andrews, Stephen V. Harkness and O. B. Jennings. Partly through superior efficiency and partly through the threat of the South Improvement Company—utilized by the Standard Oil Company to secure a monopoly of the petroleum industry by means of exclusive rebates from the railroads in the oil region — most of the rival refineries in the Cleveland area were secured by 1872.[1] By receiving secret rebates and building its own pipelines, as well as by intimidating or crushing competitors, the Standard Oil Company was able to extend its control. In 1872, Rockefeller organized the National Refiners' Association, a pool which controlled four-fifths of the petroleum business of the country. The properties of many unfortunate competitors were acquired during the panic of 1873. Control of the principal refineries in Pittsburgh, Philadelphia, New York and Baltimore were then secured. In 1877, during a terrific struggle, the Standard Oil Company defeated the Pennsylvania Railroad in its attempts to operate its own pipelines; it succeeded in taking possession of the refineries and pipelines of the Empire Transportation Company; and it forced the Tidewater Pipeline into a working agreement, curtailing its operations. By 1879, through fair means and foul, it controlled 90 per cent of the refineries and pipelines of the country. Under the leadership of Rockefeller it was the first corporation to organize and monopolize a huge, complex and wealthy industry. To protect and extend its interests it organized a trust.

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[1] Opposition from producers and public indignation resulted in the annulment of the charter of the South Improvement Company.

A trustee certificate plan was put into effect in 1879, but was not formally set up until three years later. All stock and properties within and without Ohio were transferred to a board of nine trustees, with Rockefeller as head. The stockholders received trust certificates for their holdings, entitling them to their share of the profits but not to any voting privileges. Thus, the administration of the great corporation was centralized in the hands of nine able men. The trust arrangement came to an end in 1892 when the Supreme Court of Ohio ordered it dissolved. It reorganized into a number of constituent companies, but by informal arrangement, unity of action was maintained until they were gathered into a holding company, the Standard Oil Company of New Jersey.

The ingenious system of a trust, whereby the trustees alone had the legal voting rights, was copied by other industries. Among these were the American Cotton Oil Trust in 1884, the National Linseed Oil Trust in 1885, and the Distillers and Cattle Feeders' Trust (Whiskey Trust) in 1887. This form of industrial centralization, however, did not remain in effect very long and was followed by other plans.

The Beginning of Control

As large corporations, trusts, and combinations arose, opposition to them developed among the public. Increasing hostility to monopoly grew as knowledge of the methods of the Standard Oil Company and other monopolies became widespread. A demand for regulative and restrictive action by the government appeared. The Grangers had opposed monopolies — especially railroad monopolies — and in 1880 the Greenbackers denounced corporations and called for government action against them. A political anti-monopoly party crystallized in 1884 and took part in the campaign of that year. Both major political parties bowed to public opinion in 1888, pledging federal action against trusts and monopolies. At the same time an increasing amount of literature appeared that stressed the evils of large scale industrial enterprise, especially dishonest practices, unfair privileges, the ruthless exploitation of the country's natural resources, the growth of large fortunes, and the concentration of wealth.

The first steps in the control of large scale enterprise were taken in the states. Before 1890, several of them placed anti-trust clauses in their corporation laws and the number of states adopting such measures increased after that date. Some inserted such provisions in their constitutions. This legislation, however, was largely defeated by the lax policy of several states — which even modified their existing statutes. They went so far as to authorize corporations receiving charters from them to hold stock in other corporations, which resulted in making possible holding companies. Most of the combinations that followed received their charters from these states.

Public agitation over the power and size of giant combinations led to the passage by Congress of the Sherman Anti-Trust Law in 1890. Only one specific type of combination was named in the act — "trusts," although a blanket phrase covered the others. The law begins: "Every contract, combination, or conspiracy, in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states, or with foreign nations, is hereby declared to be illegal." The purpose of the law, of course, was to declare illegal all combinations in restraint of trade. The act proved to be weak in several ways. No commission was created to enforce it, as was the case in the Interstate Commerce Act; thus private individuals or the government would have to bring suits claiming violation of the act. Then, too, it did not define clearly its terms and phrases, leaving to the courts the task of interpretation and developing principles by which industrialists and businessmen could be guided in the development of combinations and great enterprises. At first the law was largely ineffective, for it did little more than put into statutory form the old common law prohibition against conspiracies in restraint of trade.

The Courts and the Sherman Act

One of the most important early lawsuits brought under the Sherman Anti-Trust Law was the case of the United States *vs.* E. C. Knight Company, commonly called the Sugar Trust case (1895). It involved the purchase of four independent concerns in the Philadelphia area by the American Sugar Refining Company, a New Jersey corporation, which gave the company control of 98 per cent of the refining of sugar in the entire country. The Court held that the acquisition of refineries and the business of the manufacturing of sugar within a state was not a matter of interstate commerce and therefore not a violation of the act. Unfortunately, the Attorney-General of the United States, who brought the suit, failed to emphasize in the government's brief, the monopolistic character of the result of the acquisition of the refineries and as a result the Court held that a combination of manufacturers was not an illegal restraint on interstate commerce. To the public, the decision meant that the government could not control large business combinations.

Another early case of importance brought by the government under the Sherman Anti-Trust Law was that of the United States *vs.* Trans-Missouri Freight Association (1897). It involved the attempt of a number of western railroads to fix freight rates by mutual agreement. The Supreme Court decided that the Sherman Act did apply to railroads. In the five to four decision it held that the legislation prohibited all contracts in restraint of interstate or foreign trade whether or not the common action of the companies was to maintain "reasonable rates." The minority of the Court who dissented held that the agreements were reasonable and necessary to prevent destructive competition between the roads.

Two years later, in the Addyston Pipe case (1899), the Court declared illegal a pooling agreement among manufacturers of iron pipe to control prices through the regulation of production and collusive bidding. The pool was ordered dissolved by the Court on the ground that it violated the law through the limitation of competition and was directly related to interstate commerce. These decisions and various others did not constitute a satisfactory interpretation of the Sherman Act as no definite, clear-cut principles were evolved. Thus, during the first decade or so after the passage of the law, little had been done by the Court to make concrete the vague terms and statements of those who had written it.

A Period of Industrial Combinations

Between the years 1891 and 1897, the number of great industrial and business combinations that took form was not large. The depression extending over most of this period was chiefly responsible as industrial life suffered from the effects of the panic. But from 1898 to 1903 combinations, especially in the form of holding companies, increased at a most remarkable rate. In 1900, there were 185 industrial combinations with a capitalization of $3,000,000,000 engaged in producing 14 per cent of the industrial products of the country. Of these, seventy-three were each capitalized at $10,000,000 or more. In 1904, there were 318 large industrial combinations representing a capitalization of more than $7,000,000,000. These exercised power over the production of petroleum, tobacco products, beef, sugar, iron and steel, and many other industries and manufactures.

Of the various combinations, the holding company rose to preeminence during this period. Beginning with New Jersey in 1888, a few states amended their corporation laws to permit such a type of organization. Prior to this time, not many companies were legally competent to own the shares of other concerns and these exceptions were found among the carriers. A holding company may be broadly defined as a corporation that owns the securities, usually shares of stock, of other companies. There are two main types: those whose chief business it is to own the stocks of other companies controlling them primarily for investment, and those which acquire all or part of the securities of subsidiaries in order to control or influence their management and to combine such ownership with business operations of their own. An outstanding example of a holding company in the industrial field is the Standard Oil Company of New Jersey, which in 1899 increased its capital stock from $10,000,000 to $110,000,000. The new stock was issued in exchange for the stock of constituent concerns that produced, refined, and marketed petroleum products. In the years that followed, the company came to own the securities of an increasing number of subsidiaries in different parts of the world. Thus, through increasing its capital stock and exchanging the new issues for the securities of other concerns, or through the acquisition of stock by purchase or otherwise, the possibilities of industrial control by a holding company, especially through pyramiding, became almost unlimited.

The greatest of all the holding companies created during this period was the United States Steel Corporation. Chartered under the laws of New Jersey in 1901, the largest business enterprise in the world, and the first billion dollar corporation, was organized by the combination of a number of large corporations engaged in the manufacture of iron and steel. It was effected largely under the inspiring genius of Elbert H. Gary, president of one of the corporations that was included in the merger, together with Andrew Carnegie, who desired to retire from his vast interests, and the elder J. Pierpont Morgan, who magically arranged and financed the deal. The ten large companies involved had an aggregate capital of $867,550,394, owned 149 steel plants, eighty-four blast furnaces, 1,000 miles of railroad, 112 Great Lakes' vessels, and thousands of acres of coal, ore, and limestone lands. The authorized capital stock of the "Steel Trust," as it became known, was $1,404,000,000, which was, however, half-watered stock — its bonds and preferred stocks covered the whole value of the business and its $500,000,000 of common stock was largely, if not entirely, pure "water." In the years that followed, the corporation built up its assets far beyond its capitalization and also gathered under its wing many other companies within the industry.

Consolidations of large enterprises also continued. This was usually accomplished through the purchase by one corporation of the properties of related companies and uniting them into one organization. As the anti-trust laws of the states and federal government came to be applied, still another form of combination — much looser, of course, in organization — came increasingly into use. This was the practice of interlocking directorates by which several corporations, even in different fields, had a number of directors in common. It gave great power to a few men and to a degree achieved similar objectives as the holding company and merger. Large combinations, whether mergers, holding companies, or consolidations, became generally known as trusts, which term was no longer restricted to the trusteeship device for securing concentrated control.

Increased Control of Trusts

When Theodore Roosevelt became President in 1901 as the result of the assassination of William McKinley, one of the most important issues before the country was the control of trusts and monopolies. Public opinion demanded a more effective enforcement of the Sherman Act and additional federal legislation relating to corporations engaged in interstate business. The increased number of combinations since 1898 was evidence that the Sherman Act had little effect in restraining the growth of trusts or the abuses that accompanied them. And early in the century it became evident that the process of consolidation was making even more progress in the fields of transportation and finance. Combinations were coming under the control of great banking houses. This led John Moody in 1904 to write that ". . . viewed as a whole, we find the dominating influences in the trusts to be made up of an intricate network of large and small capitalists, many allied to one another by ties of more or less importance but all being appendaged to or parts of the greater groups which are themselves dependent on and allied with the two mammoth, or Rockefeller and Morgan groups. These two . . . jointly . . . constitute the heart of the business and commercial life of the nation."[1]

During the era of Roosevelt and under his dynamic personality "trust-busting" became a fixed term in the public imagination. In

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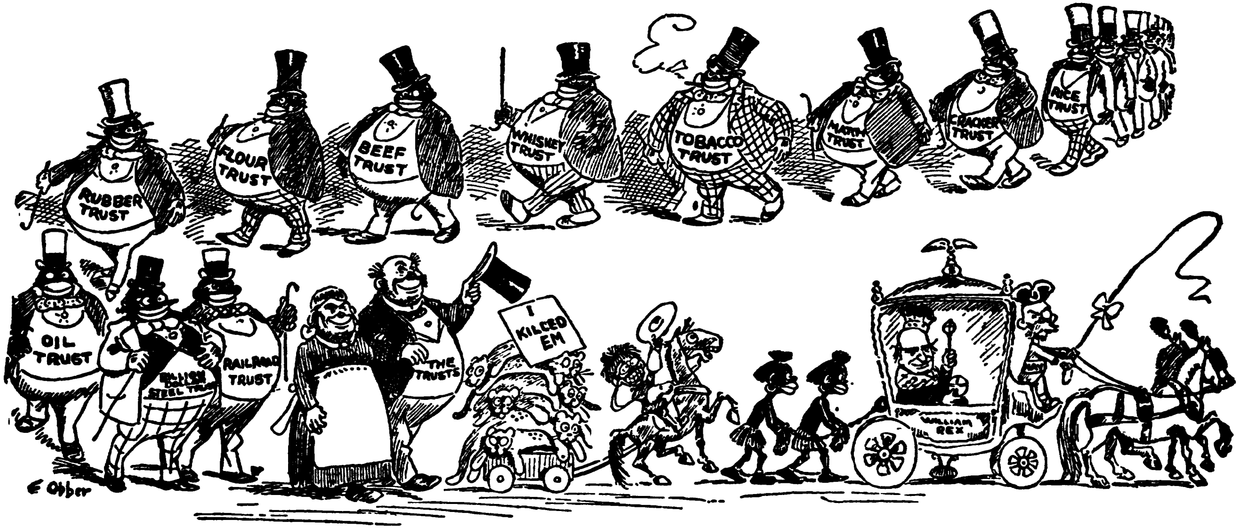
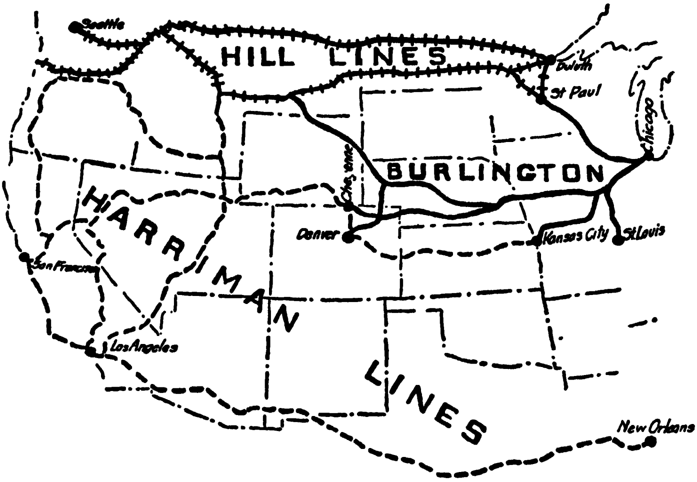
[1] John Moody, *Truth About the Trusts: A Description and Analysis of the American Trust Movement* (New York, 1904), p. 493.



A CONCEPTION OF ORGANIZED SOCIETY IN AMERICA, VISUALIZED BY OPPER IN THE NEW YORK *Journal* DURING THE McKINLEY ADMINISTRATION preaching against monopolies, Roosevelt in his first message to Congress and in speeches to the masses naively divided trusts into two classes — "good and bad trusts" — and declared that "we draw the line against misconduct, not against wealth." Good trusts, he avowed, operated and carried on their activities with a view to public welfare, trading fairly and passing on their economies to consumers. On the other hand, "bad trusts," controlled by malefactors of great wealth, were selfishly seeking their own interests and had little concern for the public. "We do not wish to destroy corporations," Roosevelt asserted; "but we do wish to make them subserve the public good." Translating his stirring phrases into action, he ordered Attorney-General Knox to bring suit against the Standard Oil Company, the American Tobacco Company, the DuPont Powder Trust, and others. When Benjamin Harrison was President, only seven suits were instituted under the Sherman Act; eight were brought by Cleveland; three by McKinley; and forty-eight by Roosevelt. Many of the latter, however, were not decided until Taft's administration.

The most spectacular Supreme Court decision regarding the Sherman Act was not against an industrial combination, but in connection with a plan to combine a number of railroads in the Northwest. The formation of the Northern Securities Company had been the result of a stock market duel between Edward H. Harriman, who controlled the Union Pacific System and affiliated financial interests, on the one hand, and J. P. Morgan, who was financing a reorganization of the Northern Pacific, on the other. Harriman was almost successful in acquiring a majority of stock of the Chicago, Burlington and Quincy Railroad, partly owned by the Northern Pacific; one of his purposes was to effect an entrance into Chicago. Another railroad magnate of the Northwest, James J. Hill of the Great Northern Railroad, which also partly owned the Chicago, Burlington and Quincy Railroad, became alarmed and proposed an alliance to Morgan which would place the stocks of both their systems beyond danger of the encroachments of the Union Pacific. A holding company was formed in 1901 which took over all the stock in the Great Northern, Northern Pacific, and Burlington lines in which the Morgan and Hill group held a controlling interest. To the astonishment of Wall Street, President Theodore Roosevelt instructed Attorney-General Knox to bring suit under the Sherman Anti-Trust Act. Morgan and the potent Republican Marcus A. Hanna rushed to Washington to dissuade the President but without result. In a five to four decision the Supreme Court upheld the contention of the government that the holding company had been used as an illegal device for restraining trade. It reversed its ruling in the E. C. Knight case in the interests of the people against privilege and monopoly. The consequence of the decision, so far as it affected those in control of railroad securities, was of little practical importance, for, although the Northern Securities Company was dissolved and the shares were returned to the stockholders in the original companies, actual control of both Northern Pacific and Great Northern Railroads was left in the hands of the Morgan-Hill group by virtue of their large holdings of stock in those companies. But the case was a landmark in the history of "big business." It was a victory for the government; it revitalized the Sherman Act; it increased the popularity of the President; and it gave the public the feeling that at last monopolies were to be controlled. Moreover, it gave a serious setback to the use of the holding company device for consolidating industrial and other types of enterprise as the general movement in this direction, which had begun in 1898, now came to an end. Other forms of combinations were now followed or sought.



The Fight for the Burlington Railroad

Another case, more spectacular than important, but one which disclosed that rebating had not ended, was brought to a District Court. The Standard Oil Company of Indiana was accused of receiving "an unlawful secret rate" on petroleum shipped over the Chicago and Alton Railroad. In 1907, Judge Kenesaw M. Landis found the company guilty of violating the Elkins Anti-Rebate Act on 1,462 separate counts and fined it a total of $29,240,000. It is evident that this huge fine was imposed because of prejudice and not in the interests of justice. The next year the decree was reversed by the Circuit Court of Appeals and was dismissed, partly on a question of the meaning of the law. The case was not reviewed by the Supreme Court.

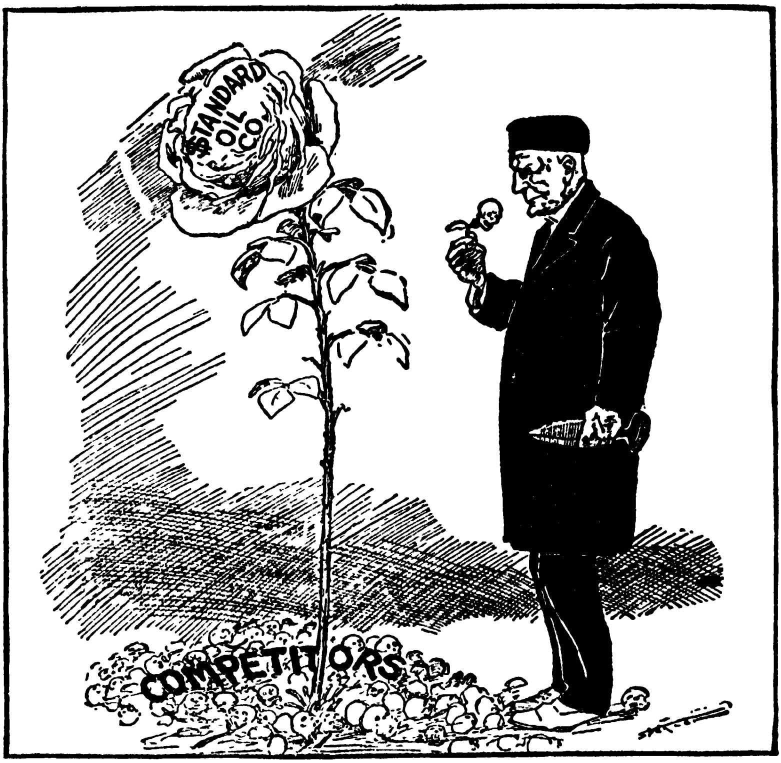
Still another example of corruption was disclosed when the case against the American Sugar Refining Company was made public. Late in 1907 it was discovered that the company had defrauded the government of large sums of money which should have been paid as duties on imported sugar. This was done by tampering with the scales on which the sugar was weighed. Suits were brought and more than $4,000,000 were recovered from the company. Criminal prosecutions were brought against officials and employees, and a number of them convicted.

Legislative advances in regulating large corporations were also made during Roosevelt's administration. In 1903, when the President recommended the creation of a Department of Commerce and a complete investigation of corporations, Congress created the Department of Commerce and Labor with a Secretary of cabinet rank "to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping and fishery industries, the labor interests, and the transportation facilities of the United States." Within the new Department a Bureau of Corporations was set up, which was authorized to investigate the activities of interstate corporations. At first its work was undertaken in a weak manner, but finally it thoroughly investigated a number of industries, providing reports and material for the prosecution of a number of them under the anti-trust laws. Also in 1903, Congress passed the Expediting Act by which suits brought under the Sherman Anti-Trust Law or the Interstate Commerce Act would be given precedence over other cases on the dockets of the federal courts, thus eliminating delay in bringing large corporations to trial. The Elkins Anti-Rebate Act of the same year applied to corporations of different kinds as well as to the railroads, for it forbade railroads from deviating from the published rates and imposed heavy penalties for violations upon the railroads, their agents and officials as well as on shippers. The Hepburn Act of 1906, although applying chiefly to the railroads, indirectly affected various types of corporations for the powers of the Interstate Commerce Commission were enlarged and made more effective.

The "Rule of Reason" and Trusts

Many judicial cases that had been begun during Roosevelt's period of office were decided during the administration of his successor, William H. Taft. But President Taft was not laggard in bringing suit against corporations for violations of the Sherman Act. In fact, during his four years of office, eighty suits were inaugurated against trusts compared with forty-eight during Roosevelt's administration.

Perhaps the most important decision brought under the Sherman Act up to that time was the one in the case of the Standard Oil Company of New Jersey in 1911. The case originated in 1906 when the government filed suit against a number of corporations and individuals alleging that they were conspiring "to restrain the trade and commerce in petroleum . . . in refined oil, and in other products of petroleum." In 1909, the Circuit Court upheld the charge, holding that the combining of the stocks of various companies into the Standard Oil Company of New Jersey in 1899 was a combination in restraint of trade and also an attempt at monopoly. The corporation was forbidden to control its thirty-seven subsidiary companies, which meant a complete dissolution into independent companies and competing



From "The Literary Digest," May 6, 1905

"THE AMERICAN BEAUTY ROSE CAN BE PRODUCED IN ALL ITS SPLENDOR ONLY BY SACRIFICING THE EARLY BUDS THAT GROW UP AROUND IT." THIS SENTENCE IN A SPEECH CONCERNING STANDARD OIL BUSINESS TACTICS INSPIRED THIS CARTOON.

units. The case was taken on appeal to the Supreme Court and in 1911, that body upheld the decision of the Circuit Court. It went further and declared that applications of the anti-trust law should "be determined by the light of reason."

The judicial principle, first adopted in the case against the Standard Oil Trust that became known as the "rule of reason," followed the minority opinion of the court in the Trans-Missouri Freight Association case (1897). It was now accepted by the majority of the justices in regard to the interpretation of the Sherman Act and prohibited only *unreasonable* restraint of trade. Acts or agreements of a monopolistic nature which affected interstate commerce in an unreasonable manner were to be construed as acts in restraint of trade. The size of the corporation was not to be considered — only its purposes, acts, and the results of its activities. The rule of reason, therefore, was to be derived not from laws or earlier decisions, but from the common sense of the judges. In a vigorous dissenting opinion in the Standard Oil case, Justice Harlan denounced the rule of reason as "judicial legislation" and an attempt to defeat the will of Congress because the act stated that "all combinations in restraint of trade" were illegal. The principle, however, was accepted and applied to other cases, notably the American Tobacco Company suit which was also decided in 1911; the company was ordered dissolved. The Court developed and elaborated the concept in the case of the United States *vs.* St. Louis Terminal Railway Association (1912). Subsequent prosecutions under the Sherman Act came to be based not on the size or power of a corporation, but on its unfair, monopolistic or illegal use of its power.

In the process of dissolution, the Standard Oil Company of New Jersey gave its stockholders pro rata shares in the companies that it had controlled. But the effect of the decision was simply to break up the trust into a number of smaller companies, all still controlled by the Rockefeller interests. The increasing market value of the various stocks in the now "competing companies" show clearly that the stockholders had not suffered in any way, nor did it seem that the public had benefited by the decision.

In the six years following the decision, the value of shares of the original holding company, a number of which were not exchanged for some time, rose almost fourfold. But one of the results of the case was to increase the demand by the public for more specific legislation. The interpretation by the court of the vague language of the law was not sufficient and public opinion in a progressive age was demanding legislation that was clear and which would provide remedies for many abuses that were becoming more and more evident.

The Progressive Era

The first fourteen years of the twentieth century were marked by intense demands for reforms—political, social and economic. This movement had its roots in the last decades of the nineteenth century in the clamor against railroads and monopolies, combinations and trusts, privilege and wealth. Agrarian discontent and the growing evils of urban life, together with the increasing power of trusts, brought forth demands for reform. They appeared through the medium of ephemeral third parties, political leaders, and writers.

In 1879, Henry George published his *Progress and Poverty,* which became the bible of his Single Tax movement. The book had been begun in 1877 as "an inquiry into industrial depression and of increase of want with increase of wealth," and was influenced by George's residence in California where he observed wild speculation in land and the consequent increase in price. In his work he contended that the whole burden of taxation should be laid on land values and he recommended the absorption by taxation of all unearned increments or increases in land values. Single tax clubs were formed, but George's program was not widely accepted in the United States in spite of attempts to promote it through political campaigns, legislative action, and plans of education. In 1881, Henry D. Lloyd began his attack on the Standard Oil Trust in "The Story of a Great Monopoly," published in the *Atlantic Monthly.* Thirteen years later his *Wealth Against Commonwealth* appeared. In 1887, Edward Bellamy's *Looking Backward* pictured a socialist Utopian state of the future in which the luxuries and necessities of life were produced through a cooperative society for the benefit of all its people. The parlor study of socialism became popular, but socialistic doctrines were out of place in America at this time. Demands for reform can also be seen in the programs and platforms of the Populist Party (p. 451) during the last decade of the century.

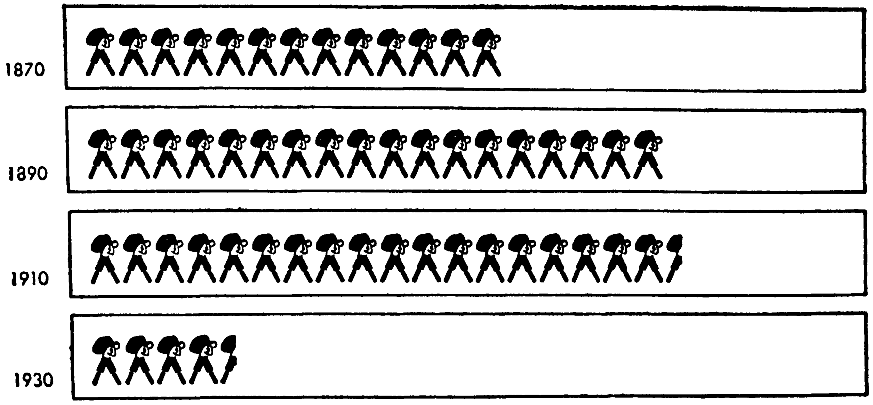
The agitation for reform brought results in the early twentieth century. The West led the swelling tide for human betterment, but it was by no means confined to that section of the country. Robert M. La Follette as governor of Wisconsin led a movement which resulted in the adoption of political devices such as the direct primary, the referendum and recall, and also in progressive economic measures for the stricter supervision, control, and taxation of corporations in his state. The cooperation that developed between specialists at the University of Wisconsin and the administration of the state became known as the "Wisconsin Idea," and was led by John Bascom, president of the University, La Follette, C. R. Van Hise, and others. University professors aided the establishment of Tax, Railway, Insurance, Civil Service, Industrial, Conservation, and other commissions, frequently serving as members. Other universities and colleges began to consider vital economic and social issues, alarming big business and small politicians by their daring thought. The masses were made conscious of the changing scene through the Chautauqua movement, the revived lyceums, women's clubs, and other agencies which stressed the need for understanding and participating in democratic life. Corruption was assailed and appeals were made for legislative and judicial action.

The most spectacular reformers of the new movement in the early part of the twentieth century were the writers. They attacked political, social and economic evils through the medium of magazines. In 1902–1903, Ida M. Tarbell's series of articles on the "History of the Standard Oil Company" appeared in *McClure's Magazine.* They were based on a study of Congressional reports, court records and other primary sources. Miss Tarbell exposed the ruthless methods and unfair practices used by that corporation toward competitors, the public and the government. In the same magazine Lincoln Steffens' "The Shame of the Cities" was published. These articles and others like them marked the beginning of a crusade which continued for many years. Ray Stannard Baker's "The Railroads on Trial," stressing the unfair manipulation of rates, appeared in *McClure's* (1905–1906). Thomas W. Lawson, a well known stock market operator, revealed what he called the strangle hold of Wall Street on the financial system of the country in a series of articles, "Frenzied Finance," published in *Everybody's. Munsey's Magazine, Collier's* and other periodicals entered heartily into the crusade. The political activities of railroads and industries, child labor, the exploitation of women, conditions in factories, the unethical practices of big business, the adulteration of food or drugs, and a thousand other ills became the theme of many magazine articles. Some were published later in book form.

Many novels and books also attacked current abuses. Examples of these can be seen in Upton Sinclair's *The Jungle* (1906), which told of the grip of the beef trust on the meat supply of the nation and stressed the unsanitary conditions of Chicago's packing plants; Frank Norris' stark realism in *The Octopus* (1901), which exposed the strangulation of the California farmers by the Southern Pacific Railroad, and *The Pit* (1903), which set forth the activities and evils of speculation in wheat. Elliott Flower wrote a story of the practices of the Chicago utilities in *The Spoilsman* in 1903.

The term "muckrakers" came to be applied to the most sensational writers and outstanding reformers. President Roosevelt was responsible for the term. Much concerned by the exposé of the control of the Senate by big business as set forth in such articles as David Graham Phillips' "The Treason of the Senate," published in *Cosmopolitan* (1906–1907), Roosevelt referred to the authors of such literature as muckrakers, likening them to the man with the rake in *The Pilgrim's Progress,* who was more interested in raking the filth at his feet than in obtaining a celestial crown. A short time later in his characteristic fashion he attacked both big business and the "lunatic fringe of muckrakers."

CHILD LABOR



Each child represents 1 per cent of all children 10 to 15 years old

From Hacker, Modley, Taylor, "The United States. A Graphic History," Modern Age Books, Inc.

Backed by public opinion the reformers were quite successful. They were partly responsible for a mass of political, social and economic legislation which was adopted in the states. Included were laws regarding compensation, child labor, factory inspection and safety (p. 412). Stricter control was also effected within the states over corporations. Among the laws passed by Congress were those pertaining to railroads, the establishment of the Department of Commerce and Labor with its Bureau of Corporations, and the Expediting Act. Important also were the national Pure Food and Drugs Act (1906), which applied to goods shipped in interstate or foreign commerce and was designed to prevent the adulteration or misbranding of foods or drugs; and the Meat Inspection Act (1906), which gave the Secretary of Agriculture under the interstate commerce clause the power to inspect all meats shipped across state boundaries and to condemn products that were "unsound, unhealthful, unwholesome, or otherwise unfit for human food." Even more significant than these results of the reform movement was the demand for progressive legislation to make clearer the clauses of the Sherman Act and to prohibit many evils which had grown with the development of trusts. This was achieved by the laws of 1914 which resulted in the culmination of the economic aspects of the movement as the attention of the country was then absorbed in the unfolding tragic drama of war in Europe.

Progressive Anti-Trust Laws

The height of anti-trust legislation was reached when the Clayton Act was passed in 1914. It was designed to remedy the defects of the Sherman Act. In its passage, it encountered much bitter opposition. The progressive movement made possible such a law — radical for that period — which reflected the ideas of President Wilson and other leaders regarding the regulation of business and industry. In the light of almost twenty-five years experience, an important measure for the control of trusts was adopted.

The Clayton Act set forth a number of definitions which eliminated much of the ambiguity of the Sherman Act so that henceforth the courts could be guided by the meaning of certain terms. It prohibited discriminations in prices among different producers where discriminations lessened competition or tended to create a monopoly; it forbade exclusive selling or leasing contracts (tying contracts), thus preventing purchasers from handling products of competing corporations; it made it illegal for a company to acquire the stock of a similar corporation, although this clause did not apply to corporations purchasing such stock solely for investment and not for the purpose of lessening competition; it imposed complicated limitations on interlocking directorates of industrial combinations and banks; it placed restrictions on the relation of common carriers to construction and supply companies; it made the directors of corporations personally liable for violations of the law by their companies; and it provided that individuals, not only government officials, could secure injunctions to restrain continued violations of the act. Clauses referring to labor were also important. The law proclaimed that "the labor of a human being is not a commodity or article of commerce"; it exempted labor and agricultural organizations from the anti-trust laws; and prohibited the use of injunctions in labor disputes unless necessary to prevent irreparable injury and damages.

In the same year, a law intended to supplement the Clayton measure was passed. This was the Federal Trade Commission Act, which established a commission of five members for the purpose of administering the anti-trust laws. It was authorized to investigate any "corporation engaged in commerce, except banks and common carriers, and to require from them annual and special reports and other information." It was empowered to prevent business enterprises from using unfair methods of competition in interstate commerce by issuing "cease and desist" orders. These orders could be enforced, however, only by the federal courts, on the application of the Commission. The Bureau of Corporations, established in the Department of Commerce and Labor in 1903, was taken over and its work was enlarged. During President Wilson's administration the Commission heard about 2,000 complaints and issued 379 "cease and desist" orders in connection with unfair competition, bribery, false advertising, adulteration, and misrepresentation. Through its efforts, it was largely responsible for bringing about the dissolution of the International Harvester Company and the Corn Products Refining Company.

The anti-trust legislation of 1914 represented a new concept in regard to the trust problem. While monopoly was still forbidden, the chief stress was placed on the maintenance of fair competition. It was evident that the lawmakers did not want to interfere with the growth of big business enterprises. The evils arising from combinations were attacked and not the combinations themselves. By this time the advantages and benefits of large scale production were being recognized. The change in government policy reflected the change in public opinion. Of course, it remained for the courts to interpret the various aspects of the new legislation.

CHAPTER XVII

The Organization of Labor

Early Attempts to Consolidate

During the Civil War, local and national organizations of single crafts increased in number and the labor movement as a whole grew stronger. Among the new national organizations were the Brotherhood of the Footboard (the forerunner of the Brotherhood of Locomotive Engineers), the Cigar Makers' International Union, and the Bricklayers' and Masons' International Union. Because wages lagged behind rapidly rising prices in this period of inflation, many strikes and labor disputes occurred, especially during the last two years of the war. In 1864, an attempt was made to organize workers of all types into the International Industrial Assembly of America but with little success. Throughout the period the workers in the various unions sought such practical ends as high wages, a shorter working day, the abolition of the truck system (paying wages through store orders), and the right to organize.

After the war, an attempt was made to bring all labor organizations into one National Labor Union, and Congresses were held each year from 1866 to 1872. Made up of local and national unions, trade assemblies, and other organizations, the national craft groups were entitled to three representatives, state organizations to two, and local and other unions to one representative, to the National Labor Congresses. In 1868, William H. Sylvis, head of the iron molders' union, was elected president, but died during his term of office. Among a long list of demands, the organization sought an eight-hour day, the creation of a national labor bureau, the restriction of cheap immigrant labor, a reduction of tariff duties on necessities, and the abolition of national banks. The participation of the National Labor Union in the national political campaign of 1872 together with its strong advocacy of social reforms brought its activities to an end. In its last meeting held in 1872, only seven delegates were present.

The Knights of Labor

Secret societies of all kinds appeared after the Civil War and labor was not exempt from them. Among these, the order known as the Knights of St. Crispin was organized in 1867 by the shoemakers of the country. It established a journal, endorsed political candidates, started cooperative stores, decried certain evils of the wage system, protested against the abuse of the machine, and demanded social justice. While it was active for a time, it disappeared after the panic of 1873. Secret societies and organizations sprang up among other crafts. Of importance was an order organized in 1869 among the garment cutters of Philadelphia by Uriah S. Stevens, which became known as the Noble Order of the Knights of Labor.

At first this organization was secret, even its name, which was designated by five stars. It possessed an elaborate ritual and was composed solely of garment cutters. Within a short time members of other crafts were admitted and the ideal of craft unionism gave way to the plan of amalgamating all workers into a coherent and disciplined labor army of mixed local and district assemblies. In theory, the government of the Knights of Labor was highly centralized. The chief governing body was the General Assembly, which elected the General Executive Board and the Grand Master Workman, and had much power over the subordinate bodies — local, district, state, trade, and national. The local groups were chiefly single crafts, but some locals were mixed assemblies including men of various trades. The organization admitted to its ranks gainfully employed persons — men and women, whites and Negroes, skilled and unskilled, as well as employers, merchants, and farmers. It excluded those engaged in the manufacture or sale of intoxicating liquors, bankers, professional gamblers, lawyers, and, prior to 1881, physicians. The Knights of Labor grew slowly at first, but it made much progress after T. V. Powderly followed Stevens as its Grand Master Workman in 1879 and when it abandoned its secrecy two years later. The organization reached its peak in 1886 with a membership of about 700,000, although claims were made of a much larger enrollment.

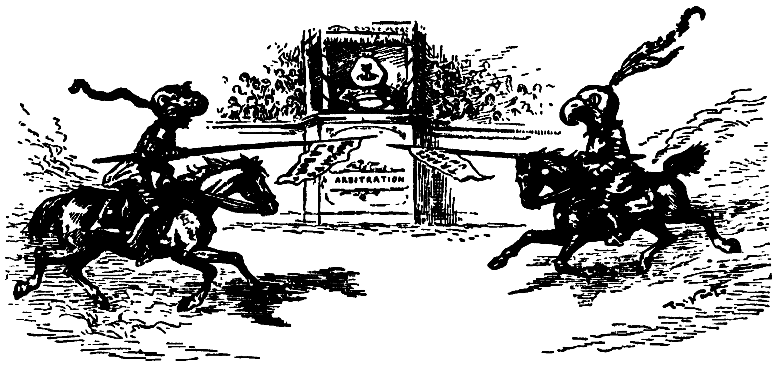
The Knights of Labor aimed in the direction of broad social reform through political action and through cooperation rather than by the use of strikes and other methods of trade unionism. It planned for the betterment of the working class through discussion, arbitration, and careful planning. Among its demands were the gradual introduction of the eight-hour day, land reform, the establishment of a bureau of labor statistics, the prohibition of child labor, graduated income and inheritance taxes, government ownership of railways and telegraph lines, the abolition of national banks, and the introduction of a system of cooperation to take the place of the wage system. Many local groups set up cooperative workshops and stores, but most of these were short-lived as financial problems, inefficient management, competition with private distributors, and unfair practices of the railroads put an end to them.

As the Knights of Labor reached its height of power in 1886 forces were at work which contributed to its rapid decline. The disastrous failure of many strikes — including sympathetic strikes — and boycotts, in which the Knights were involved, despite the theoretical opposition of the organization to such a weapon, was partly a reason. Then, too, it did not succeed in enticing to its membership many strong unions, such as the Railroad Brotherhoods. The over-centralization of the organization was partly responsible for many of its difficulties, although the local and district assemblies were often quite independent and at times defied the orders and rulings of the national officers. Because of its welcome to all groups, many radicals, extreme socialists, and other jangling elements entered the order and created trouble through their conflicting views and proposed panaceas. In 1886, largely because of the Haymarket riot, the Knights split into two groups as the conservatives under Powderly refused to uphold the radicals, especially the extremists of Haymarket. Basically, the general program of the union was too radical and visionary for industrial America of that period. The ideals, reforms, and elements of socialism of the program were too theoretical to relate immediately, specifically, and definitely to the direct interests of various trades and crafts. As a new organization arose, which emphasized a federated organization of skilled craftsmen instead of a mass industrial organization, "job conscious" trade unions turned to it.

By 1890 the Noble Order of the Knights of Labor was overshadowed by the rising and more virile American Federation of Labor, which seemed to fit better into the American skilled labor environment. But the brief and spectacular career of the Knights had not been without result. The organization had strengthened many weak local unions and had helped to found many new ones. It did much to secure the federal Bureau of Labor (1884) and through its lobbies it exerted an influence in obtaining other legislation which benefited labor. It contributed to the forces that brought about the repeal of the Labor Contract Law in 1885, which had forbidden the importation of foreign laborers under contract. It also laid the foundation for the eight-hour day and other labor reforms, which were accomplished after the activities of the Knights had ended.

The American Federation of Labor

A labor convention, which met in Pittsburgh in 1881, formed an association made up of craft and industrial unions with the very cumbersome name of "The Federation of Organized Trades and Labor Unions of the United States of America and Canada." Among the leaders of its most important unions were P. J. McGuire, of the carpenters' union and proposer of Labor Day, together with Adolf Strasser and Samuel Gompers of the cigar makers' union. Gompers had been a socialist, but had concluded that the doctrines of Karl Marx could not solve American labor problems. With his colleagues, he set out to build up a conservative labor federation as opposed to the industrial and centrally controlled unionism of the Knights of Labor. A reorganization took place in 1886 and a new name — the American Federation of Labor — was adopted.



Cartoon by Nast from "Harper's Weekly," June 12, 1886.

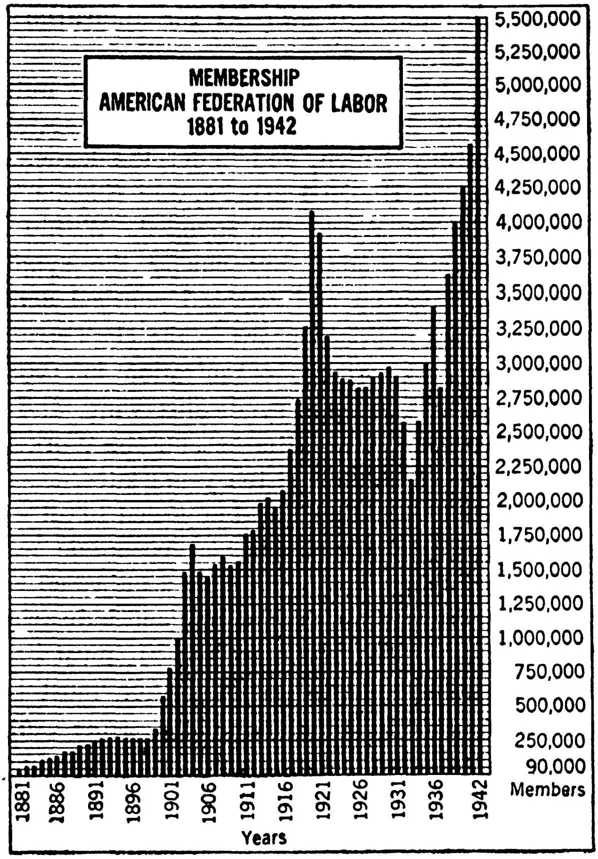
A Tilt Between the Knights of Labor and the Other Trades Unions, with Capitalism the Arbitrator

The chief object of the Federation was, and still is, to promote independent trade unionism based upon craft autonomy. It remains today a federation or organization of unions, most of them craft organizations, with a few industrial unions. Each governs itself, works out its own policies and controls its own financial affairs. The powers of the Federation are set forth in a written constitution or are conceded by the constituent unions at the annual convention.

The organic unit of the Federation is the local union made up of members who work together in one community. Each local is a part of a national union in its own particular trade except in a few cases where no national organization exists. In order to achieve greater unity and power, the locals are encouraged to affiliate with the central labor union of the town or city in which it is located and also with the state federation wherever possible. The national union, the city central union or federation, and the state federation are all affiliated with the American Federation of Labor. At the top of the structure of the Federation is the Executive Council, elected by the Convention and composed of the president, a number of vice-presidents, a secretary and a treasurer. The Council, which has broad discretionary powers, administers the affairs of the organization during the period between Conventions. Its revenue is obtained from a per capita assessment on the members of the affiliated unions.

The policies of the American Federation of Labor from the beginning have been to agitate all questions that will benefit the economic status of wage earners. Thus every attempt has been made to secure the enactment of favorable measures and the repeal of oppressive laws in state legislatures and in Congress. All possible means are taken to remedy abuses under which the worker labors and to uphold him in his just rights and privileges. Stress has been laid on collective bargaining and the working out of trade agreements with employers. The use of the union label — a mark adopted and placed on products made by a labor organization — has been promoted, and the buying only of union labor goods has been advocated. The Federation has continually maintained that the strike, the boycott, and the unfair list are necessary weapons of organized labor, but direct action emanates from the unions and not from the parent body. The policy regarding strikes has been rather conservative, but when a strike has been endorsed, moral support and financial aid, if necessary, may be given. At first, an "Unfair List" was published in the *American Federationist,* the official organ of the Federation, but in 1909 a Supreme Court decision required that the list be dropped. In its annual conventions, the Federation has endorsed reforms, many of which have become law or have been achieved in other ways. Among these reforms have been the initiative, referendum and recall of judges; the popular election of senators; workmen's compensation laws; the restriction of immigration; women's suffrage; a national department of education; old age pensions; and the abolition of child labor.

From the beginning, the organization was fortunate in its leadership. Outstanding was Samuel Gompers, its president, with the exception of one year, from its origin until his death in 1924. Born in a London tenement, Gompers, of Dutch-Jewish lineage, came to America as a youth and worked his way up from the bottom. A man of forceful personality, great energy, executive ability, organizing genius, conservative idealism, but rather narrow ideas, he was able to stave off the attempts by some groups to commit the Federation to socialism on the one hand and to prevent the formation of an American labor party on the other. While insisting that unions be kept away from partisan politics, during most of the period he was forced into national politics, even to support candidates and to endorse parties. Although he was hated and assailed by many within and without his organization, the American Federation of Labor grew and prospered under his presidency. The total individual membership increased from less than 200,000 in 1886 to 2,000,000 in 1914. In 1920, a peak of 4,000,000 was reached. At the death of Gompers in 1924, the membership was 2,865,000.



Industrial Workers of the World

By reason of the very structure of the American Federation of Labor, it automatically excludes the mass of unorganized and unskilled workers. It includes the best trade unions, although a few outstanding labor organizations, notably the Railroad Brotherhoods, have preferred to remain unaffiliated. As a protest against craft unionism and the conservative policies of the American Federation of Labor, the ultra-radical industrial union, known as the Industrial Workers of the World, was formed.

At a convention held in Chicago in 1905 under the influence of the Western Federation of Miners together with the socialistically inclined American Railway Union, and under the leadership of such men as W. D. Haywood, Daniel De Leon, and Eugene V. Debs, the Industrial Workers of the World was founded. Within the new organization were varying groups, but chiefly the syndicalists who sponsored industrial unionism and opposed political action, and the socialists who advocated political means in the class struggle. A split occurred within the ranks of the organization in 1908 and there emerged the Chicago I.W.W., the syndicalist wing, and the Detroit I.W.W., the socialist group. The latter became the Workers Industrial Union in 1915, which was dissolved ten years later.

The Industrial Workers of the World appealed to all workers. The organization declared that the "universal economic evils affecting the working class can be eradicated only by a universal working class movement" and thus it was planned to be "one industrial union embracing all industries." A manifesto stated: "It must be founded on the class struggle and its general administration must be conducted in harmony with the recognition of the irrepressible conflict between the capitalist class and the working class." Believing in the ultimate revolutionary destruction of capitalism, the members of the I.W.W. have advocated direct action as a means to victory. They favor quick strikes, boycotts, and sabotage — violent in the malicious destruction of property or peaceful as "soldiering on the job." The doctrines have not appealed to a large number of Americans, but have attracted certain groups of unskilled factory operatives and migratory workers of the West in lumber camps and harvest fields, as well as some unions of skilled workers. Prior to 1914, the organization was quite aggressive and made itself known through its activities in several spectacular strikes. But at its height in 1912, it had less than 100,000 members. Prosecution of violent leaders by public authorities, internal dissensions, lack of finances, and the condemnation of public opinion reduced its ranks. During the First World War the direct hostility of the union to the government curtailed its operations. In more recent years many members left the organization and joined the Communist Party or the Committee for Industrial Organization. The avowed terroristic strategy of the I.W.W. has made little appeal to American labor as a whole.

Labor Disputes and Strikes

As labor became better organized after the Civil War, it was inevitable that disputes with capital should increase in number and intensity. The growing complexity of the industrial system and the rise of powerful labor organizations brought strife and even bloodshed. Complete statistics of strikes prior to 1881 are not obtainable, but from that year on a fairly accurate picture of industrial warfare can be obtained as the Bureau of Labor and later the Department of Labor, as well as states and industries kept labor records. From 1865 to 1881, there is evidence to show that industrial disputes and strikes numbered a little less than 500 and, with a few notable exceptions, were not serious.

Soon after the Civil War, the searchlight of public opinion was thrown directly on labor disturbances in the anthracite coal fields of Pennsylvania. For a decade or more, labor terrorism and violence was wide-spread in the hard coal regions. A secret organization, known as the "Molly Maguires," undertook to intimidate, threaten, and punish mine bosses and colliery superintendents who offended members of the organization. There were many murders, but local authorities were powerless to apprehend the criminals who kept their activities shrouded in secrecy. Finally, in 1874, Franklin B. Gowen. president of the Philadelphia Coal and Iron Company employed some Pinkerton detectives. One of them, James McParlan, worked as a miner for almost two years. He posed as a counterfeiter and a fugitive from justice, gained the confidence of members of the Molly Maguires, and not only joined the organization but became its secretary. With all necessary evidence in his possession, he secured the arrest and conviction of twenty-four criminals, ten of whom were executed. The activities of the organization thus came to an end in 1877. This first widely-publicized and sensational case was followed by many others, which brought the activities and disputes of labor directly to the attention of the public.

The first serious railroad strikes occurred in 1877. Violent and widespread, they were the first on a national scale and grew out of conditions of depression years. They began over another 10 per cent reduction in wages, irregular employment, and the increased tonnage of trains. Serious trouble developed on the Baltimore and Ohio Railroad at Martinsburg, West Virginia. The state militia was called out, but, when it proved sympathetic to the strikers, President Hayes, upon the request of the state governor, sent federal troops to the scene, ending the strike, but not until it had begun to spread over the country like a wind-fanned fire. Riotings, destruction of property and loss of life took place in Baltimore and in various places in Pennsylvania. In Cincinnati, Toledo and St. Louis, mobs closed shops, factories and mills. In Chicago, radical groups staged impressive demonstrations. In these places, and in others in the state of New York, the mobs were dispersed by the militia. The special cause for the great strike on the Pennsylvania Railroad at Pittsburgh was the objection of the railroad workers to "double headers," which enabled the company to dispense with the services of half their freight conductors, brakemen and flagmen on the Pittsburgh division. Rioting and violence broke out and much railroad property was destroyed; the governor of the state called out troops and a battery of artillery; pitched battles in which many were killed resulted. After the strike had ended, the railroad company sued Allegheny county for damages, maintaining that it was liable for losses sustained because it was unable to keep order and to prevent rioting and destruction. The county was required to pay the railroad almost $3,000,000. The workers lost in these railroad strikes. A wave of reaction resulted: the public condemned labor, the courts reviewed the old doctrines of conspiracy, and the use of federal troops in labor disputes established a precedent which augured ill for the future.

The decades of the 1880's and 1890's were marked by industrial conflict. From 1881 to 1886 inclusive, 3,902 strikes occurred involving 22,300 establishments and 1,323,000 men. This tempo was kept up for many years. The chief reasons for the strikes included demands for increased wages, opposition to wage reductions and agitation for reduced hours of work. The whole country was wrought up over the strikes but little could be done. Thoughtful persons raised the question as to how the causes of strikes could be removed.

Among the innumerable labor disputes of the 1880's, railroad strikes again loom large. During 1884–1885 the Knights of Labor succeeded in winning four of the five major railroad strikes on the Gould lines. Another dispute on the same system began in March, 1886, involving the Texas and Pacific Railroad at Marshall, Texas, on the issue of union recognition, and a daily wage of $1.50 for unskilled laborers. Soon, many railroads were tied up in the central states. Violence flared up but after the use of federal troops, the strike collapsed. Industrial unionism was discredited and the part played by the Knights in the strike was one factor that led to the decline of their organization.

In 1886, disturbances in Chicago, climaxed by the Haymarket riot early in May of that year, focussed the attention of the nation upon the increasing number of anarchists entering the country from Germany. As a protest against the shooting of a number of workmen by the police near the McCormick Reaper Works, August Spies, editor of the *Arbeiter-Zeitung,* issued circulars demanding revenge and calling an indignation meeting at Haymarket Square. Editors of other radical papers also announced the meeting. About 1,400 workmen, among them a number of anarchists, assembled at the appointed time and place. After several speeches had been made, about 180 policemen arrived and began to disperse the group. As one of the speakers was seized, a bomb fell. A deafening explosion followed, killing several policemen and injuring others. A number of men were arrested. Eight alleged anarchists were convicted on conspiracy charges, four were hanged, and the others sentenced for life. In 1893, Governor Altgeld of Illinois pardoned the three surviving prisoners, declaring that the trial had been a farce. The eighth man had committed suicide in prison. The Haymarket riot put an end for the time being to the demand for an eight-hour day, which collapsed under the stigma of radicalism. The turmoil brought fear to many as anarchist "plots" were "discovered" in different parts of the country, in spite of the fact that the number of extreme radicals among the striking workmen was small. Neither the Knights of Labor nor the rising American Federation of Labor had any direct connection with the anarchists and both organizations opposed and deprecated the violence of the times.

One of the most spectacular strikes of the period occurred at Homestead, Pennsylvania, in 1892. It was a landmark in the development of organized labor as it affected the steel industry. By this time, the Amalgamated Association of Iron, Steel and Tin Workers had become powerful. The strike arose at the Carnegie Steel Company's work at Homestead chiefly over a reduction of wages and the refusal of the company to recognize the union. The strikers seized the plant and even captured the hired strike-breaking force — 300 Pinkerton detectives. Pitched battles were fought along the Ohio River and the strikers used small cannon as well as guns to defend themselves and to attack the detectives. Public opinion at first seemed to be sympathetic to the workers, partly because of the extremely low wages paid them, but their battle tactics and the attempt of Alexander Berkman, an anarchist from New York, to assassinate Henry Clay Frick, the president of the company, turned public sentiment against them. The governor of the state called out the militia. Homestead was placed under martial law and order was restored. The workmen lost the strike and most of them were replaced by new employees. The bloodshed — for detectives, workmen and civilians were slain — led to an investigation by Congress, but nothing was done by that body to prevent the recurrence of such strife in the future. Organized labor's first great struggle with large-scale capital in the steel industry ended disastrously in complete failure.

The Pullman strike of 1894 was one of the most important of the times because of its national consequences. Then the town of Pullman, the home of the Pullman Palace Car Company, adjoining Chicago, was an ideal company town noted for its beauty and cleanliness in contrast to the somber and dirty industrial company towns of the era. It possessed wide streets, distinctive small homes, and green parks. During the Chicago World's Fair of 1893, visitors from all over the world admired the model town and Englishmen compared it favorably with their own Port Sunlight where Sunlight Soap was made. Although the company owned most of the town, including the homes and many of the stores, the employees had been contented and satisfied. But in the last decade of the century, industrial strife and unrest wrecked the peaceful town. Because of depressed conditions in 1893 and 1894, the Pullman Palace Car Company reduced the wages of its employees several times for a total average reduction of 25 per cent. Early in 1894 several thousand employees sought refuge in the new American Railway Union, organized by Eugene V. Debs. In May a committee of workmen called on George M. Pullman, president of the company, to urge that the wage schedule of June 1893 be restored. When this was refused, 2,500 employees quit work and forced the closing of the shops. Attempts to arbitrate the differences brought the response from the company that there was nothing to arbitrate.

The local Pullman strike developed into a general railroad strike when members of the American Railway Union refused to handle Pullman cars and equipment. This soon affected twenty-four railroads centering in Chicago and led to a railroad tie-up in the entire central West, finally spreading to all parts of the country. Because of the interference of the strikers with trains carrying mail, judges of the United States District Court in Illinois issued a "blanket injunction" prohibiting all interference with trains. The injunction was printed and copies were posted on railroad property. Turbulent scenes followed and thousands of angry men and women began looting, destroying and burning railroad property in Chicago. Much of this, however, was done by lawless adventurers, professional criminals, and hoodlums who had been attracted to the World's Fair and had remained in Chicago as the receding tide carried homeward the visitors to the great exposition. Complaints reached Washington of the seriousness of the situation and President Cleveland ordered federal troops into Chicago on the ground that the mails were being obstructed and interstate commerce held up. The railroad officials did not ask Governor Altgeld of Illinois to call out the state militia because of his sympathies with the strikers and his favorable attitude toward labor. The calling out of the federal troops resulted in many lengthy telegrams between Cleveland and Altgeld, the latter vigorously protesting that states' rights were being violated, while the President insisted that he was simply upholding the federal laws. The troops finally restored order, began running trains under military guard, and soon the strike was ended. At the same time, Debs and other union officials who attempted to direct the activities of the workers were arrested under the authority of the blanket injunction and immediately sentenced to prison. With their leaders gone and the troops against them the strikers gave up in despair. While property losses were largely confined to the area of Chicago, disorders occurred also in cities in other parts of the country.

The Pullman strike was important for several reasons. It reopened the states' rights controversy. In the constitutional question many agreed with the President but others opposed, maintaining that if troops were necessary to put down violence, the state militia should have been called out first. Cleveland demonstrated a firm courage, for his action showed that he would not let popularity with labor interfere with what he considered to be his duty. Another phase of the strike had to do with the use of the blanket injunction in labor disputes. It had been applied to labor a decade or so earlier, but became prominent for the first time in the Pullman strike. The use of the injunction has played an important part in American labor history since that time.

Serious labor disturbances continued into the twentieth century. One of the most important and dramatic was the anthracite strike of 1902. In May of that year, after vain efforts to secure an agreement, 150,000 miners, members of the United Mine Workers, went on strike under the leadership of John Mitchell. The workers demanded an increase in wages, a working day of eight hours instead of ten, payment by weight and not by car, and the recognition of the union. The operators refused to recognize the union and insisted that the employees of the different companies should deal directly only with their employers. Most of the anthracite mines were owned by corporations which also controlled the coal-carrying railroads, and the dispute affected them.

The strike forced a complete shutdown, but the operators refused to have anything to do with the organized workers. There was little violence and public sympathy arose for the strikers as writers and students of social problems visited the area and presented a picture of sordid living conditions in the coal-fields. The public, suspicious of big business and monopolies, was also influenced when a letter of George F. Baer, president of the Philadelphia and Reading Railway Company, chief spokesman for the employers, was given wide and unexpected circulation. In part, Baer wrote: "The rights and interests of the laboring man will be protected and cared for — not by the labor agitators, but by the Christian men to whom God in his infinite wisdom has given control of the property interests of the country and upon the successful management of which so much depends." This gave the cue for a large number of cartoons, which aided in shaping public sentiment.

The strike continued throughout the summer. As the East was threatened with a winter without coal, President Roosevelt, early in October, summoned Mitchell and the employers to the White House. The conference was turbulent and no agreement could be reached. Later Roosevelt stated: "There was only one man in that conference who behaved like a gentleman and that man was not I." He referred to Mitchell. A secret attempt to intercede had been made through a commission headed by ex-President Cleveland, but without result. Roosevelt now was ready to send United States troops to take over the mines, although his constitutional right to do so was in question. His decision, however, was made known and the employers yielded on October 13. At a stormy conference they agreed to a commission of arbitration to be appointed by the President. The men returned to work, coal began to flow again from the anthracite fields, and a winter coal famine was averted. The commission under Judge George Gray visited the coal-fields in Pennsylvania, heard hundreds of witnesses, and in the spring of 1903 made its report. It concluded that neither side was entirely right and concessions were made to both. The workers did obtain a 10 per cent increase in wages and the commission suggested that future disputes be referred to a board of conciliation, chosen by the mine owners and the workers.

The anthracite strike was of significance in regard to the relationship between the government and industry. During the deadlock between the operators and strikers, it was pointed out that such a dispute involved a third party — the public — whose interests were paramount. The settlement of the strike enhanced the prestige of the government and of the President. The dispute also gave publicity to the need for greater government control over corporations at a time when public sentiment was making such demands. It is debatable whether the President would have carried out his threat to take over the mines in view of the consequences it would have entailed. In 1909, in reply to a question as to what he would have done if the operators and miners had not compromised, he said: "I would have seized the mines and the roads and would have given the freezing people coal, and Congress could have impeached and be damned."

From the Minneapolis "Times"

THE NATION ENDORSES PRESIDENT ROOSEVELT'S COURSE IN THE COAL STRIKE OF 1902

Strikes continued and increased in all types of industries. Violence was marked in the Cripple Creek coal strike of 1903–1904, following the refusal of the operators to confer with representatives of the United Mine Workers. Partly as a result of this strike the I.W.W. was born. In the winter of 1909–1910, a most important strike of women workers took place in New York City when 30,000 Jewish, Italian and American operatives in the shirtwaist trades made certain demands which were ultimately granted. They were aided in their fight by wealthy women, college girls, and others. Many spectacular labor disputes were carried on by the I.W.W., especially the textile strikes in Lawrence, Massachusetts, in 1912, and in Paterson, New Jersey, the next year. Agitators of this organization at the same time kept the Northwest in a state of flux and unrest. The Colorado coal strikes of 1913–1914 resulted in civil war and a reign of terror in which men, women and children were killed. Federal troops restored order, better working conditions were secured, and the state enacted legislation to prevent similar occurrences in the future.

The statistics of strikes and lockouts from 1881 to 1905 reveal that there were 38,303, involving 7,444,279 strikers and employees. Of these 1,546 disputes were lockouts (the closing of plants and business establishments by employers to coerce contentious employees).[1] The number of employees locked out during this period was 716,231, less than 10 per cent of all engaged in the total number of strikes and lockouts. Of the strikes, the workers won more than 50 per cent, while employers were successful in less than half of the lockouts. For the period 1906 to 1914, the federal government was inactive in the collection of strike statistics. Other sources show a total of 27,023 strikes averaging about 3,000 a year, compared with an average of 1,500 for the previous twenty-five years. Annually 600,000 were idle during the period 1906–1914 compared with a yearly average of 300,000 during the preceding quarter of a century. Since 1915 complete figures of labor disputes have been made available.

National Employers' Associations

As labor became more and more powerful, employers drew together into national organizations. From the time of the Civil War and even earlier, employers had organized against labor, either locally or regionally in certain industries. This was often done through "blacklisting" — circulating among themselves the names of union members, labor agitators, strikers, or persons otherwise distasteful. This was practiced in the early thirties. In the sixties, railroads especially maintained blacklists; and the technique was adopted in many industries when unions became more aggressive in their demands. By the end of the century many states had passed laws prohibiting or restricting the practice, but secret methods used by employers made its detection difficult if not impossible. Some employers or groups of employers, resorted to the boycott, used spies, regulated output, and combined to maintain a certain level of wages and prices.

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[1] The distinction between a strike and a lockout has been abandoned by the United States Bureau of Labor Statistics since 1922.

An employers' association is a combination of employers formed chiefly for the purpose of dealing with or fighting labor groups or unions. Among early city organizations of this sort, the Iron Founders' Association of Chicago and vicinity (1864) may be noted as an example. The Associated Employers of Indianapolis was another illustration of an aggressive anti-union local employers' organization. The first important national association of employers was the United States Potters' Association (1875). Other national groups, in marble cutting, ready-made clothing, machine construction, and in various fields followed. In 1886, the Stove Founders' National Defence Association (later the Manufacturers' Protective and Development Association) was formed. It typified a number of organizations which tried to be conciliatory and peaceful in relation to labor and achieved success in making formal wage contracts with employees and in settling grievances. On the other hand the National Association of Manufacturers is an example of an anti-union group. Organized in 1895 to promote domestic and foreign trade, by 1902 it became an employers' association, aggressive in opposing labor demands. It maintained an active labor-relations policy, condemning and opposing the blacklist, boycott, lockout strike, closed shop and union label. It consistently insisted that employers should be "unmolested and unhampered in the management of their business." Its legislative and political programs were fostered through two affiliated organizations, the League for Industrial Rights (1902) and the National Industrial Council (1907). Among many other organizations of this kind, the National Metal Trades Association is an example of an employers' association in a limited field of industrial enterprise.

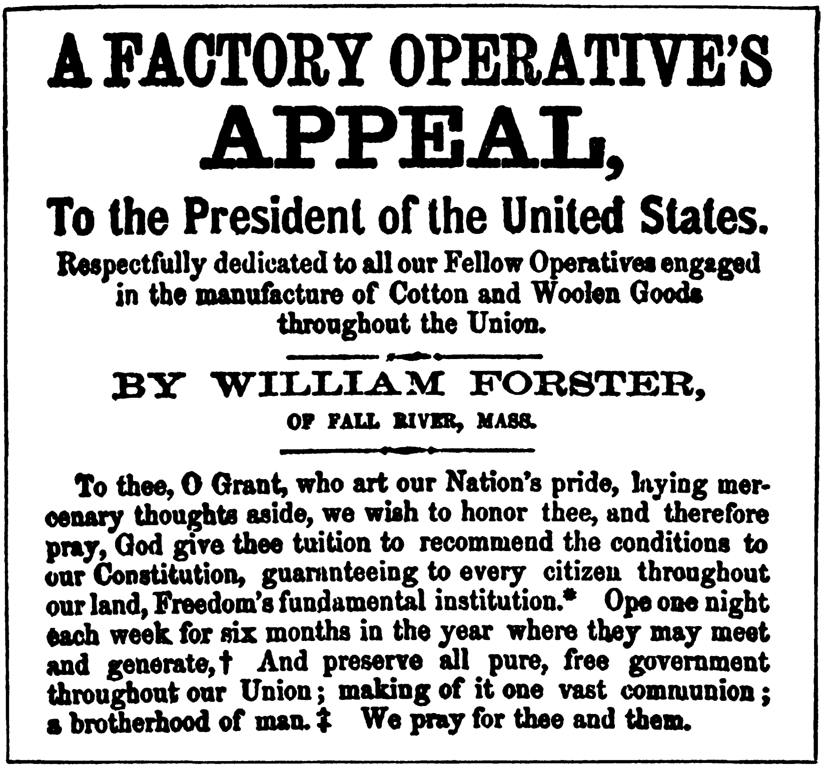
Labor Legislation

Between the Civil War and the First World War, as industrialism and big business became fully established and as industrial relations shifted, many laws were passed relating to labor and many gains were obtained through legislation. The first state labor bureau was established in 1869 in Massachusetts and others followed, bearing witness to the increased interest in labor problems. A Massachusetts law of 1866 prohibited the employment in any factory of children under ten and required an eight-hour work day and six months schooling for those between ten and fourteen. These provisions, however, were not enforced for more than a decade. Then other states passed similar laws. By the end of the century one-half the states set a minimum age of twelve years in manufacturing industries and a maximum of ten hours a day, but only a dozen states regulated child labor in all types of occupations. By 1900, the ten-hour day for women was generally accepted and enforced in a majority of states.

During the last decades of the nineteenth century state laws were passed to protect the health and safety of workers in factories, workshops, mercantile establishments, sweatshops, laundries, and other places of work. By the end of the century the chief states that produced minerals had mining laws which attempted to regulate hours of labor and to secure safety devices. Railroad labor laws also set forth certain conditions for the protection of workers. In 1892, a federal law made eight hours the working day for employees engaged in government work, but the courts refused to interpret the law as applying to government work given to private concerns. The courts also threw out laws which attempted to regulate working hours for men. Yet in 1898, the United States Supreme Court in the case of Holden *vs.* Hardy upheld a Utah law which limited underground mining work to eight hours, except in cases of emergency.

Until the troublesome decade of the eighties, Congress had little concern with the problems of labor. However, in 1884, a Bureau of Labor, headed by a Commissioner, was established within the Department of Interior, to collect information relating to labor and capital. Two years later, President Cleveland sent a message to Congress in which he recommended legislation and advocated the creation of a Board of Labor Commissioners to act as the official arbiter in labor disputes. In 1888, Congress passed a modest act relating only to the interstate railroads; it provided for a board of arbitration to investigate differences between railroads and their employees. No provision was made for the enforcement of decisions and the practical results of the law were not important. Ten years later the Erdman Act superseded the law of 1888. It provided that certain officials appointed by the President should act as mediators in railroad disputes, and if they failed, a Board of Arbitration should be appointed whose findings should stand until passed upon by the federal courts. No cases were brought under the act until 1906. In the years that followed many controversies were decided under its terms.

From the beginning of the twentieth century, labor made important gains. Under the impetus of the progressive movement a mass of economic and social as well as political legislation was adopted by the states. Much of the economic legislation followed the patterns set forth in the latter part of the nineteenth century, but it was now made more effective and was more rigidly enforced. Most important was the change in regard to the responsibility for accidents in industry as mechanization increased employment hazards. Under the common law and under such employers' liability acts as existed in the nineteenth century, the employee was helpless when accidents occurred and was inadequately compensated for injuries. Slowly, the responsibility for accidents was placed upon the employer, unless due to the negligence of the worker. While European countries had passed compensation laws during the last two decades of the nineteenth century, it was not until 1902 that the first compensation law was passed in the United States when Maryland enacted such a law. In that decade other states followed, but all were declared unconstitutional. The compensation movement was given an impetus when a federal law of 1908, covering certain federal officials, was upheld by the courts. States amended their constitutions to make possible the enactment of laws for compulsory compensation and framed legislation that would pass the tests of the courts. Between 1910 and 1920, forty-two states and three territories passed similar compensation



A FACTORY OPERATIVE'S
APPEAL,
To the President of the United States.
Respectfully dedicated to all our Fellow Operatives engaged in the manufacture of Cotton and Woolen Goods throughout the Union.

BY WILLIAM FORSTER,
OF FALL RIVER, MASS.

To thee, O Grant, who art our Nation's pride, laying mercenary thoughts aside, we wish to honor thee, and therefore pray, God give thee tuition to recommend the conditions to our Constitution, guaranteeing to every citizen throughout our land, Freedom's fundamental institution.* Ope one night each week for six months in the year where they may meet and generate,† And preserve all pure, free government throughout our Union; making of it one vast communion; a brotherhood of man.‡ We pray for thee and them.

From the Rare Book Room, Library of Congress

AN APPEAL TO GRANT IN 1869 FOR NATIONAL LEGISLATION TO SHORTEN THE LABORING HOURS OF COTTON AND WOOLEN GOODS WORKERS laws. Prior to 1914, many states adopted minimum-wage laws for women and children. A majority of states set up permanent boards of conciliation and arbitration for the purpose of settling industrial disputes. Many of the laws that benefited workers were contested by employers as unconstitutional, especially under the Fourteenth Amendment. Most of the legislation, however, was upheld by the courts as being within the police power of the states — that inherent right of every sovereign state to make and enforce laws for the protection of the health, safety, morals, public order, convenience, and general welfare of its inhabitants.

During the first part of the twentieth century, the federal government, also, did much in the interests of labor. In 1903, a Department of Commerce and Labor was established, whose Secretary was given cabinet rank. A separate Department of Labor was set up in 1913. William B. Wilson, a former Congressman, who had risen from the ranks of labor, was appointed by President Woodrow Wilson as the first Secretary of Labor. According to the act creating it, the duty of the Department of Labor was to "foster, promote, and develop the welfare of the wage earners of the United States; to improve their working conditions, and to advance their opportunities for profitable employment." Within the Department, the important Bureau of Labor Statistics, which had originated in the earlier Bureau of Labor, was continued. The Conciliation Service was continuously vigilant in efforts to promote industrial peace. Many other bureaus and divisions have been established since 1913. Among other federal laws passed prior to 1914 that benefited labor was one which provided an eight-hour day for workers on government contracts (1912). The Newlands Act of 1913 superseded the Erdman Act of 1898 by creating a formal Board of Mediation and Conciliation for the arbitration of railroad disputes. Many disputes were settled under the terms of this law until the railroads were placed under federal control in December, 1917, during the First World War.

Although labor made great gains in the first part of the twentieth century, it received many setbacks from the courts relating chiefly to the weapons used by unions to secure their demands. A spectacular case arose in connection with the Danbury hatters' use of the boycott. In 1901–1902, the union known as the United Hatters of North America tried to unionize the employees of the Dietrich E. Loewe Company, a hatmaking establishment in Danbury, Connecticut. As the employers resisted the move, a nation-wide boycott against the company's products was declared by the workers. A suit was brought against 191 members of the newly-formed local union under the

Sherman Anti-Trust Law for combining to interfere with interstate commerce by means of a boycott. A District Court awarded the company $74,000 damages, but the Circuit Court of Appeals overruled the verdict. In 1908, the United States Supreme Court reversed the decision of the Circuit Court and the case was sent back to it for retrial. That court, thus instructed, decided that the damages due the company amounted to $80,000, which was to be trebled under the terms of the Sherman law, the total sum with costs amounting to more than $250,000. Since the union was not incorporated, each of the dependents was liable for a share of the penalty. In 1903 the national union of hatters had agreed to back the local union in their struggle, and later the agreement was taken over by the American Federation of Labor after the United Hatters became affiliated with it. In 1913, the Federation disclaimed further responsibility but took up a collection for the workmen. Later, in order to satisfy the judgment, the savings bank accounts of the individual workers were attached and the homes of 140 of them in Danbury, Bethel and neighboring communities were ordered sold by the court. The decision was a tragedy for the region of Danbury. In this case as in others, the courts made a distinction between the primary and secondary boycott. The former was declared legal unless accompanied by coercion; the secondary boycott — inducing third parties to stop patronizing or using the products of the boycotted firm — was pronounced illegal.

Another important case in the federal courts which went against labor was the Buck Stove and Range case, involving the blacklist and the boycott. In 1906, the metal polishers of the Buck Stove and Range Company, St. Louis, struck for a nine-hour day. As a result of the strike, the American Federation of Labor put the company on its "unfair list." The company thereupon brought suit and obtained a sweeping injunction forbidding this boycott. When the Federation tried to circumvent the order which required that it cease printing the name of this firm in the "We Don't Patronize" column of its official journal, Samuel Gompers, John Mitchell and Frank Morrison were sentenced to prison for contempt. They escaped their sentences on a technicality, but the decision forbidding the boycott was a blow to labor. The case was finally outlawed by the Supreme Court in 1914 under the statute of limitations. Due to the decisions in these cases, labor came to look upon the federal courts as an enemy.

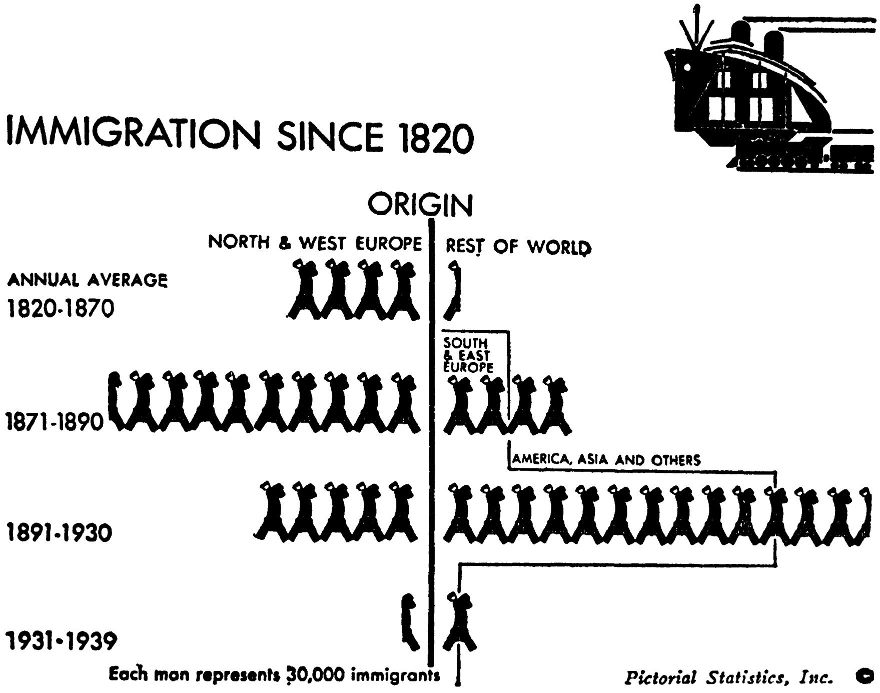
Federal legislation, passed in 1914, however, was hailed as a great triumph by labor. The Clayton Act, while applying to monopolies and restraints of trade, also referred to labor. Regarding certain union activities which had often been interpreted as restraints of trade, the law stated that nothing in the federal anti-trust statutes was to be construed as to prohibit the existence of labor and agricultural unions. Labor unions were thus declared to be legal. Another clause prohibited the use of restraining orders or injunctions in labor disputes and strikes "unless necessary to prevent irreparable injury to property . . . for which there is no adequate remedy at law." Labor was jubilant, for the use of injunction in labor disputes had been a prominent issue since the Pullman Strike of 1894. But in the years that followed, the courts interpreted this clause narrowly and the victory was not quite as overwhelming as labor first anticipated.

Immigration

Closely related to labor were problems of immigration. From the earliest days of settlement immigrants had been welcomed from lands of oppression. From time to time during the national period, fears of alien influence cropped up, but it was not until the decades of the thirties and forties that a nativist movement took form, and that hostility toward immigrants, especially Catholics, developed. This opposition was manifested in occasional rioting, in the destruction of property, and in attacks in many publications. Not all Americans were seized by this fever of hate, but nativism continued until the Civil War. During that war, such sentiment died down as the great need for man power appeared. The government set up an Immigration Bureau to encourage Europeans to come to America and enacted a law which gave legal status to the importation of laborers from Europe and China (1864). Organized labor in general had consistently opposed large scale immigration, but only after labor unions had become a powerful factor in national life did Congress pay much attention to their demands.

Definite records of immigration begin with the year 1820. It has been estimated that between 1776 and 1820, about 250,000 immigrants came to America. Then followed a wave which reached a high point in the year 1837 when 79,380 reached American shores. Another, larger wave culminated in 1854, when 427,833 were admitted. As the Civil War began, there was a decline in immigration, but the numbers increased after 1862. From 1820 to 1914 more than 30,000,000 Europeans came to this country, more than the total population of the United States in 1850. This figure does not take into account those who returned. Accurate statistics of emigrant aliens were not gathered until 1908 and these disclose a relatively large number of emigrants who returned home in that period. For instance, in 1908, alien immigration amounted to 782,870, while 395,073 left the country.

As immigration increased following the Civil War, peaks of 459,803 in 1873 and 788,992 in 1882 were reached. After 1900, immigration grew tremendously. In 1905, for the first time, the number of immigrants arriving within the year reached the million mark and in 1907, the number amounted to 1,285,349, a high for all time. In 1914, the height of the last great wave of immigration to the United States, the number was 1,218,420. The outbreak of the First World War reduced the stream of immigrants to a trickle. After the war a new policy of highly restrictive immigration was begun.



Pictorial Statistics, Inc.

Prior to the eighties the bulk of immigrants came from the countries of northern and western Europe, most being of Teutonic or Nordic stock. By 1890, a shift in the sources of immigration was becoming apparent as ever-increasing numbers came from southern, central and eastern Europe. The leading countries from which immigrants came during 1890–1900 were Italy, Germany, Austria-Hungary, Russia, and Ireland. From 1900 to 1914 the order was Austria-Hungary, Italy, Russia, England and Ireland. The influx of immigrants of quite different stock than the older immigration was due to a number of reasons. The overcrowded conditions in many European cities forced some of the poorest groups to leave for a land that was conceived to be one of equality, democracy, and economic opportunity. Many peasants on long-tilled farms left for the same reasons in the expectation of taking up the 160 acres of land offered free by the government. The desire to escape military service in certain countries of the Old World forced many parents to bring their large families to America. As in earlier years, religious and political persecution contributed to European emigration. The anti-Semitic persecutions in Russia sent large numbers of Jews to this country. The opening of direct steamship lines between Mediterranean ports and the United States stimulated immigration. "Runners" and agents were paid commissions by steamship companies to travel from village to village, especially in southern Europe to induce people to emigrate. These agents distributed pamphlets, broadsides and timetables of steamship lines, railroad companies, land groups, industrialists, and immigration commissions established by many states. They painted America in glowing colors. Contacts between Europeans and their friends and relatives in the United States, who had bettered their condition, also played a part in the vast tide of immigration. The addition of large numbers from the different European countries resulted in complicating the economic, social and political problems of the nation.

The successive waves of immigration upset the progress of organized labor. Not only were the problems due to cheap, competitive labor and to strike-breaking, but many employers, to oppose unionization, divided wage earners along nationalistic, racial and religious lines. The minority of alien agitators among the ranks of immigrants, who were classified as anarchists, communists, and syndicalists, also hurt the case of labor with the public, especially after the Haymarket riot of 1886, the Pullman strike of 1894, and the Lawrence strike of 1912. The importation of contract labor from Europe by employers seriously affected labor. Although the law of 1864, legalizing contracts by which immigrants pledged their wages in repayment of their journey across the ocean, was repealed four years later, the importation of contract labor continued. Corporations like the American Emigrant Company, which imported contract labor for employers in return for commissions, flourished. In 1885 and 1888, Congress under pressure from the Knights of Labor and other labor organizations, made it unlawful to import contract labor except under certain conditions. In spite of these laws, violations occurred. Subsequent legislation designed to tighten the law did not entirely abolish the evil. Italians, Greeks, and Mexicans among others continued to be the victims of such exploitation throughout the period.

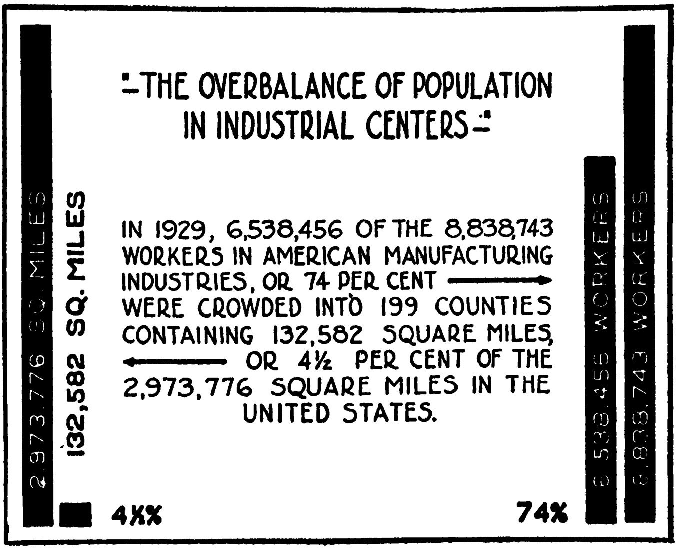
In 1882, when the tide of European immigration reached a height not equalled again until the opening of the twentieth century and when the character of the tide was changing, the first important general immigration act was enacted by Congress. Laws had been passed in 1862, 1869, 1873 and 1875 chiefly relating to coolie immigration from the Orient, for the purpose of insuring fair treatment and the safety of immigrants in crossing the ocean. Until 1882, with one exception (the temporary war act of 1864) the federal government left the control of immigration to the seaboard states. The law of 1882 provided for cooperation between state and federal authorities. It imposed a tax of fifty cents on each arrival and excluded certain undesirable classes. This mild policy of regulation continued in the years that followed. From time to time new laws increased the amount of the head-tax and the undesirable list was expanded. Under the act of 1907 all types of mentally, morally or physically deficient persons were excluded. Steamship companies were required to be more careful in their solicitation of and advertising for immigrants. Partly through the efforts of labor, literacy tests were advocated — generally to admit only those aliens who could read and write English or some other language. Both major political parties at times included such planks in their platforms. Presidents Cleveland, Taft and Wilson vetoed bills passed by Congress requiring immigrants to pass a literacy test on the ground in each case that such a qualification was a penalty upon the lack of opportunity in the home land and not a test of character, personal fitness or good citizenship. However, such a test, although a weak one, was included in the measure of 1917, vetoed by President Wilson, but passed by Congress over his veto (p. 595).

After the Civil War a serious immigration problem arose on the Pacific coast. Chinese came to the United States in increasing numbers at the time of the California gold rush. Excluded from staking claims in the "diggings," they did the menial work in the towns and gold camps. The great need for unskilled labor during the Civil War and in the building of the Union Pacific Railroad led to the Burlingame Treaty of 1868, which recognized the right of Chinese and Americans to migrate freely from one country to another without restriction. By 1882 approximately 375,000 Chinese had entered the country.

After the California gold rush had subsided and the transcontinental railroad had been completed, many Chinese were unemployed. Others had small businesses in the cities or were engaged in raising fruits, growing small crops, and in canning. From 1870, unemployment on the west coast increased, and the competition of the Chinese, who were paid low wages, with white labor, whose standards of living were higher, resulted in increasing anti-Chinese feeling. This was expressed through boycotts on Chinese goods, laundry ordinances, anti-alien laws, and the imposition of taxes of different kinds. Riots occurred and a number of Orientals were killed. Men like Denis Kearney traveled up and down the Pacific coast crying "The Chinese must go." In 1877, Kearney organized the short-lived Workingmen's Party of California as a protest against widespread unemployment, land monopoly, railroad domination, Chinese coolie labor competition, and other economic and political ills of the period.

It took some time for the East and for Congress to realize the serious conditions existing on the west coast. But in 1878, Congress passed a measure restricting Chinese immigration (to a maximum of fifteen on each vessel). President Hayes vetoed the measure on the ground that it was contrary to the treaty of 1868, although he favored restriction. He was bitterly denounced in California. However, he appointed a commission to go to China to secure the modification of the Burlingame treaty. The commission was successful and a new agreement reached whereby the United States could "regulate, limit or suspend . . . but . . . not absolutely prohibit" the immigration of Chinese laborers to its shores. As a result, the Chinese Exclusion Act of 1882 was passed. It suspended the immigration of skilled and unskilled laborers for a period of ten years, but allowed the admittance of a few classes — teachers, students, merchants and visitors — on temporary visits. This policy was continued by other laws and was extended to Hawaii and the Philippines in 1900 and 1902. Largely an economic one, the Chinese problem was unfortunately handled too often from the point of view of politics.

During the last decades of the century, small numbers of Japanese, from the newly-awakened land of Nippon, landed on the Pacific coast. As early as 1890, when 2,039 Japanese were enumerated as living in the United States, citizens of western states began to petition Congress to prohibit Japanese immigration. The lower standards of living of the Orientals made competition with them difficult. The "yellow peril" scare, too, which had its genesis in the early contacts between Americans of European ancestry and the Chinese immigrant laborers, now increased and racial barriers were emphasized. The number of Japanese in the country increased from 24,000 in 1900 to 72,000 in 1910, but they were found chiefly in California. An Asiatic Exclusion League, formed under the auspices of labor in 1905, aided in the movement against the Japanese, and led to the segregation of Japanese children in a school in San Francisco. Agitation developed into diplomatic exchanges. In 1907, President Theodore Roosevelt through a "gentleman's agreement" prevented the passage of legislation in Congress which would have excluded the Japanese in a way similar to that applied to the Chinese. The immigration law of that year authorized the President to enter into "such international agreements as may be proper to prevent the immigration of aliens who, under the laws of the United States, are or may be excluded. . . ." The text of the "gentleman's agreement," made between Secretary of War Root and Ambassador Takahira, whereby Japan agreed not to issue passports to skilled or unskilled laborers desiring to emigrate to the United States, has never been published. In spite of the agreement, the California legislature continued to consider discriminatory legislation until the federal laws of 1913 and 1920 made it impossible for Japanese to own or lease agricultural or other real property in the United States. Japan was seriously offended in 1917 during the First World War when it was placed in the barred zone and Japanese immigration to the United States prohibited. That country displayed much resentment when the Immigration Act of 1924 was passed.



-THE OVERBALANCE OF POPULATION IN INDUSTRIAL CENTERS-

IN 1929, 6,538,456 OF THE 8,838,743 WORKERS IN AMERICAN MANUFACTURING INDUSTRIES, OR 74 PER CENT ⟶ WERE CROWDED INTO 199 COUNTIES CONTAINING 132,582 SQUARE MILES, ⟵ OR 4½ PER CENT OF THE 2,973,776 SQUARE MILES IN THE UNITED STATES.

Courtesy of Survey Graphic

CHAPTER XVIII

The Settlement of the Far West

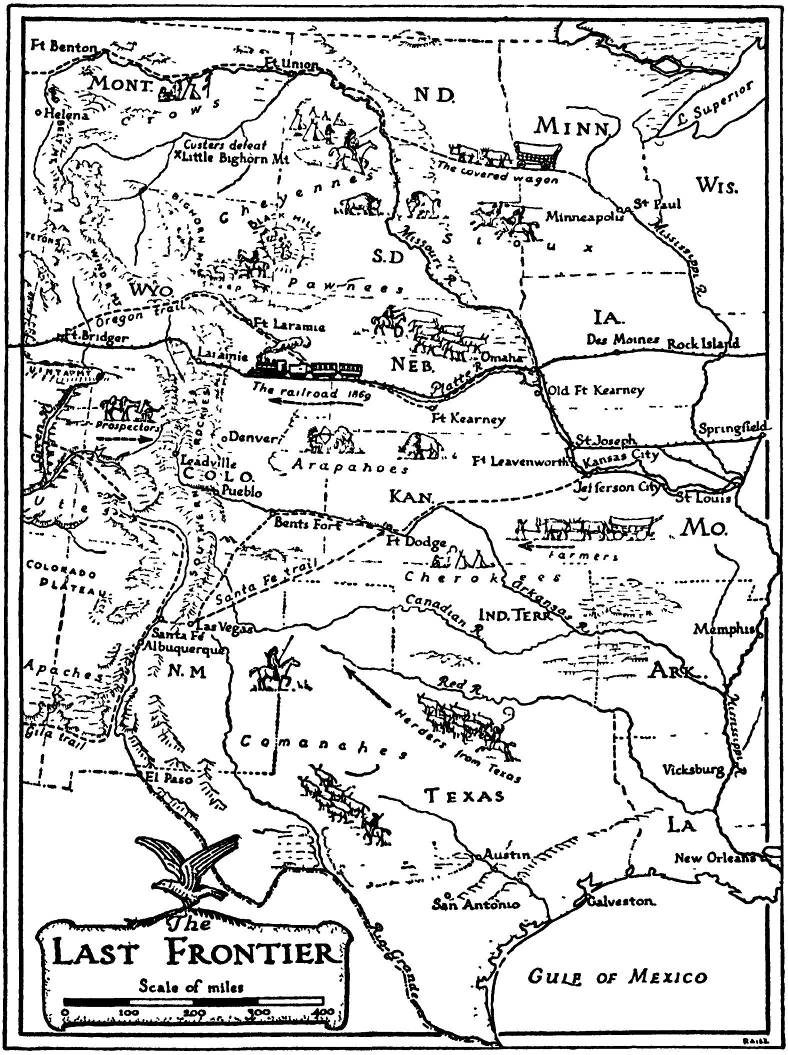
The Last Frontier

By the time of the Civil War, the frontier was pushing westward beyond a line, roughly speaking, drawn north and south through sections of Kansas and Nebraska and central Texas, although the Mormons had made a settlement in the cheerless region of Great Salt Valley. A new frontier, begun by the gold-seeking "forty-niners," was also pushing eastward to the regions of the Sierra Nevadas and the Rocky Mountains, where the precious metals constituted a magnet drawing people into new areas in the search for wealth. Before the end of the century, these two movements — eastward and westward — finally culminated in the "last frontier" and the raw, brawling, turbulent, ever-moving frontier, which had played so important a part in American history, was officially declared closed by a department of government and no longer existed. This, however, did not mean that the West was even sparsely settled, for today regions exist in several states that have not yet been surveyed.

Many factors contributed to the rapid settlement of the West and to the disappearance of the frontier. The various land laws enacted by Congress, the transcontinental railroads and the railway web that followed in the vast region west of the Mississippi Valley, the attraction of the precious metals and other mineral wealth, the development of ranching, and a new policy regarding the Indians were some of the most important factors. Beyond the fertile regions of the Mississippi Valley lay the vast expanse of plain, plateau and mountain extending to the Pacific coast.

The Homestead Act and Other Land Laws

The Homestead Act was passed in 1862. The Republican party had thus fulfilled this part of its bargain made in 1860 to insure western support. Under the law, 160 acres of government land could be obtained by any person over twenty-one who was an American citizen or who had filed his intention of becoming one. After five years of residence or cultivation the settler received his title by paying a nominal registration fee. Provision, however, was made for the purchase of the land by the homesteader after six months of residence at the prevailing



minimum price, usually $1.25 an acre. The residence requirement was raised to fourteen months in 1891. In spite of the liberal terms of the act, the problem of credit was a serious one for the western settler. Capital needed for breaking the prairie, seeding and stocking the land, obtaining tools and machines, and fencing pastures had to be borrowed in the pioneer period at excessive rates of interest.

The Homestead Act has been described as "the greatest democratic measure of all history." Actually it was not. The frontier had leaped across the Mississippi before this time and the law applied largely to areas which were not suitable for homesteading at all, but were chiefly mineral, timber, grazing, and semi-arid lands. In general it applied to the region west of the 100th meridian, from the Great Plains to the Pacific, for the area east of this region, well suited for small farms, was already largely settled or was held by speculators, although some good unoccupied lands were obtainable and were taken up in the years immediately following the passage of the act. The government also continued the cash sale of land under the terms of other laws. A total of 125,000,000 acres was granted to the railroads between 1862 and 1871, when the government ceased its policy of railroad grants. Homesteaders were required to move at least twenty to forty miles away from projected routes, with the result that many preferred to pay the required $400 or more to the government or railroads in order to be close to transportation facilities. Among other laws which helped to dispose of the national domain were the Dawes Act of 1887, modified by the Burke Act of 1906 and others, which threw on the market some 100,000,000 acres of Indian lands. The federal government also turned over to the states many millions of acres of land to be sold for the purpose of financing agricultural and technical colleges under the terms of the Morrill Land Grant Act of 1862.

To encourage tree planting in regions where timber was sparse or absent, rainfall insufficient, and hot winds and dust storms prevalent, Congress passed the Timber Culture Act in 1873. It provided that settlers could obtain 160 acres of land on condition that forty acres were set out in trees. At the time that the law went into effect, lands could be obtained in Iowa, in Minnesota, and immediately west of the Missouri River. But in a few years, it actually applied only to the plains and the semi-arid regions where it was largely impossible and even undesirable to fulfill the requirements of the government regarding the production of timber. About 10,000,000 acres were disposed of by this act, but much fraud was involved in its administration, land companies benefited, and little permanent tree growth resulted. It was repealed in 1891. Under the Desert Land Act of 1877, semi-arid lands were offered in 640-acre tracts to settlers who would irrigate them. The provision for irrigation was vague and it became evident that effective ditch construction would require more capital than most settlers could obtain. As a result, the law chiefly benefited grazing interests and irrigation companies. Most harmful to the public interest was the Timber and Stone Act of 1878, which provided for the sale of quarter sections of land unsuited for agriculture but valuable for timber. The law operated to transfer public timberlands to large corporations and speculators. Over 13,000,000 acres of the national domain were thus alienated.

With vast areas of land obtainable, speculation increased and great tracts in the most desirable regions were·obtained by domestic and even foreign syndicates. Under these conditions, homesteaders had to take up their free lands in less fertile or advantageous regions, while settlers who were willing to pay for better lands had to compete with speculators or pay the prices set by the states or the railroads. Under the various land laws, it was indeed possible for a person to acquire a total of 1,120 acres of public lands: 160 acres each under the Homestead, Pre-emption and Timber Culture Acts and 640 acres under the Desert Land Act. But the laws did not benefit large numbers of bona fide settlers as they should have done. Instead, large groups and companies got control of much of the land. Fraudulent entries were common; "floaters" were employed by predatory interests to pre-empt lands; claims were turned over to land, timber and mining companies; perjury and bribery of land officials were common; and the federal Land Office did not have the organization, personnel, or backing to insure careful and honest administration. By 1900, 25,000,000 acres of land were in the possession of fifty-four companies and individuals. Almost half the farmlands in the Rocky Mountain and Pacific states were in units of about 1,000 acres or more, tilled by laborers or tenants, some of them Japanese. Beginning in 1891, when the Pre-emption and the Timber Culture Acts were repealed, a movement was inaugurated to reform the land policy of the country, which in time bore fruit, although much of the best government lands by the early twentieth century had been distributed in a manner contrary to the public interest.

The Mineral Kingdom

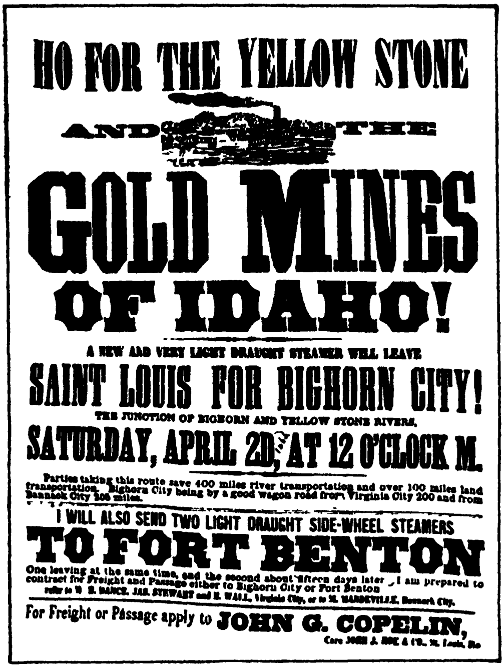
During the last half of the nineteenth century the mineral kingdom of the far West was developed. Wandering prospectors, disappointed in not achieving their dreams of wealth in California during the gold rush, turned eastward toward the Rocky Mountains and followed streams, creeks and rivers to the real supply of the precious metals in the hills and mountains. Declining gold production in California led many northward and others southward. From time to time there were exciting stampedes here and there as new discoveries were made and new gold rushes developed. In the frantic attempt to find metals men rushed to Colville, a Hudson's Bay Company post in the region of Washington, to places along the Fraser River in Canada, to the Snake

River region, as well as to the southwest, frequently re-opening old Spanish mines. The precious metals became a powerful incentive to rapid settlement as prospective miners from the East as well as from the west coast opened up new communities. The Comstock Lode at Virginia City, discovered in 1859, attracted many settlers to that region and held the attention of the world for some time as fabulous wealth was secured. During the first twenty years, more than $500,000,000 in silver and gold were taken from these mines. But it was evident that the miner working only with hand tools could do little in regions where hoisting machines, giant pumps, heavy drills, stamp mills, and cables, among other things were necessary to extract ores from their rocky gangue, requiring large amounts of capital and a corporative form of enterprise. The wandering miner had to give up his free and easy life and become the employee of large companies, working fixed hours at regular rates of pay. The regions of Montana, Idaho, New Mexico, Wyoming, and Arizona, as well as Nevada and Colorado were settled in much the same way, the metal attracting the first settlers. The last of the important gold rushes within the United States was to the Black Hills in 1874, which precipitated a new stampede, called the warlike Sioux to action as their reservations were overrun, and led to the terrible massacre of Custer and his men at the Little Big Horn River. This gold rush marked the opening up of the South Dakota region.

While gold and silver were chiefly sought in the West during this period, lead, copper, and other metals were also mined. For a time Colorado became the largest lead-producing region in the world. After 1885, lead production steadily increased in Idaho and Utah. Since 1900, these two regions and the Mississippi Valley have been the most important lead-mining areas in the country. Copper was another metal that rose to importance. For some time after the Civil War, the Michigan mines led all others in supplying this metal. In 1864, copper mines were opened in Montana and then in Arizona. In 1881, the Anaconda copper mine near Helena, Montana, began its famous career. The growing demand arising from the rapidly developing electrical industries and the increasing use of copper in alloys resulted in a remarkable development of this industry.

The Cattle Country

During the two decades or so after the Civil War, the Great Plains became the scene of an important range-cattle industry, which contributed much to the color, romance and folklore of the West. The driving of cattle to distant markets was not entirely new in America when Texas cattle men began to use the Chisholm Trail and other routes as they established "long drives." The Spaniards in Mexico in the sixteenth century drove great herds from place to place. In the eighteenth century and later, Spanish settlements in Texas, built around missions or forts, derived a meager revenue from horses and cattle sent occasionally to Louisiana, though such trade was often contraband. Then, again, as the American frontier moved beyond the Appalachians, and especially after improved roads were built to connect the new West with the older East, cattle and swine were driven from Ohio, Kentucky and Tennessee to Philadelphia, Baltimore and other urban centers of the East. But the cattle industry of the plains, emanating first from Texas, possessed some aspects not found in these earlier examples of the long drive to distant markets.



HO FOR THE YELLOW STONE

AND THE

GOLD MINES

OF IDAHO!

A NEW AND VERY LIGHT DRAUGHT STEAMER WILL LEAVE

SAINT LOUIS FOR BIGHORN CITY!

THE JUNCTION OF BIGHORN AND YELLOW STONE RIVERS,

SATURDAY, APRIL 2D, AT 12 O'CLOCK M.

Parties taking this route save 400 miles river transportation and over 100 miles land transportation. Bighorn City being by a good wagon road from Virginia City 200 and from Bannack City 205 miles.

I WILL ALSO SEND TWO LIGHT DRAUGHT SIDE-WHEEL STEAMERS

TO FORT BENTON

One leaving at the same time, and the second about fifteen days later. I am prepared to contract for Freight and Passage either to Bighorn City or Fort Benton refer to W. B. DANCE, JAS. STEWART and E. WALL, Virginia City, or to M. MANDEVILLE, Bannack City.

For Freight or Passage apply to JOHN G. COPELIN,

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From the original in the State Historical and Miscellaneous Library, Helena, Montana

Before the Americans living in Texas had freed themselves from Mexican misrule in 1836, a "Beef Trail" had been established to New Orleans. Years before the Civil War, markets had been found in Sedalia, Springfield, and St. Louis in Missouri and longhorn steers even reached Chicago. During the Civil War, cattle were driven from Texas to different places along the southern line of battle for the Confederate forces and at its close Texas had about 5,000,000 cattle and few markets in which to sell them. Then began the period of the long drive as attempts were made to find outlets in the north country. At first these efforts were not very successful because of the hostility of the settlers of Missouri and eastern Kansas who feared the introduction of Texas fever. The establishment by Joseph G. McCoy in 1867, of Abilene, Kansas, on the route of the Kansas Pacific Railway as a depot to which Texas cattle could be driven for shipment by rail to Kansas City, marked the beginning of a large number of similar cow towns. Wichita, Ellsworth, Dodge City, Kansas; Ogallala, Nebraska, Cheyenne, Wyoming; Medora in the Dakotas; Prescott, Arizona, and Las Vegas, New Mexico, were some of the most important cattle centers that arose during this period. Dodge City came to boast it was the "cowboy capital of the world." Trails were thus established to rapidly growing centers all over the Great Plains.

Two types of cow towns appeared. In one, the cattle were slaughtered for its own needs and for the constantly growing community of which it was the center; the other marked the terminus of the long trail and the railroad shipping point to great packing centers. Stockyards and packing plants were built in such cities as Chicago, St. Louis, Kansas City and Fort Worth as the railroads extended their lines. The Chicago packers came to dominate the field and set prices. In the period after the Civil War, men like Cudahy, Armour, Swift, and Libby became leaders in the packing industry. Brokerage companies and banks specializing in cattle loans sprang up to finance the industry and the railroads provided special cars for the shipment of cattle and meat products. The increase of population and the settlement of new regions provided expanding markets both in the East and the West.

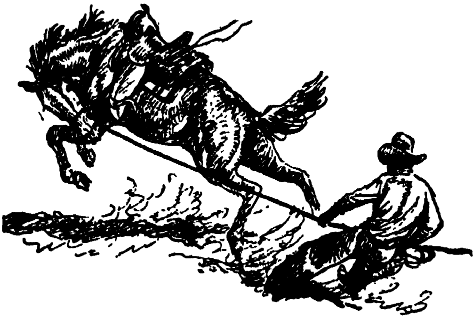
During the period of the open range cattle industry, cattle associations — local, district, sectional and national — functioned. The Colorado Cattle Growers' Association was organized as early as 1867. Others quickly followed. The Wyoming Stock Growers' Association, formed in 1873, expanded into most of the regions of the West. In 1884, the National Cattle and Horse Growers' Association was established at St. Louis. The cattle associations supervised the sale of cattle, laid out roundup districts, promulgated rules for mavericks or stray cattle, and recorded the brands, made up of letters, figures, geometric designs, symbols, or representations of objects that denoted ownership. They attempted to eliminate through agreements the overcrowding of the range, which resulted in flooding the market; they cooperated with officials in enforcing laws relating to cattle; and they urged legislation favorable to their interests.

Roping a steer.

Hobbled.

Bucking.

Branding irons.



An "ornery" one.

THE COWBOY IN ACTION — DRAWINGS BY WILL JAMES

The Texas longhorns were a hybrid of Spanish, Mexican and mixed American blood. Narrow-hipped, high-shouldered and flat-ribbed, they possessed a spread of horn that varied from three to six feet, occasionally more, from tip to tip. Texas steers were tough and hardy in all respects. They could travel over the roughest ground; climb high mountains; fight wolves, panthers or bears; survive during torpid months on liquid nourishment obtained from the leaves of the prickly pear and yucca stalks; and, fortified by range grasses and browse, could survive the blizzards of the Northwest. The longhorns were in no way pampered and received little attention except when they were branded and again when they were herded north to be sold. But even in the seventies, pure-bred Shorthorns, Herefords, and other breeds were imported into parts of the West, as well as the East, from England and Scotland.

The story of the long drive over the plains and prairies is the epic of the adventurous cowboy. He became master of the plains for a brief period after the first transcontinental railroads sounded the death-knell of the vast herds of buffalo and as the Indians of the plains were subjugated and confined to restricted areas. The cowboy tended the stock, did the branding, and drove the cattle to market. His costume and equipment, selected for utility, not for color, were patterned after those of the earlier Spanish cowboys in Texas and California. Chaparejos (leather "chaps") over loose, heavy trousers, protected his legs from thorns and goring cattle; high-heeled boots made walking awkward but prevented entanglement in the stirrup; the neckerchief across the mouth and nose kept out stifling dust and was also protection against the raw wind; the partly-buttoned vest, worn over a woolen shirt, provided pockets for watch, tobacco, and matches; and the broad grey or brown leather-thonged hat served as protection against sun, rain, snow and sleet. On horses largely of Spanish stock the cowboys — adventurous youths from Texas, eastern and western farms, and the British Isles — herded and handled the longhorns with skill in horsemanship and in the use of the lariat. They possessed courage, resourcefulness, and stamina.

When the cowboys took to the trail, it was usually with herds of about 2,500 to 3,500 and rarely more. There were 33,000 steers and 2,000 wild horses in the big stampede at the Red River in 1882, but they were made up of eleven herds that had been waiting for the water to go down. Stampedes were hazardous and occurred occasionally during roundups and the long drive. Sudden noises and sights could start a stampede. Thunder, lightning, the jump of a jack rabbit, the sudden scream of a panther, the whir of a rattlesnake, or a horse shaking an empty saddle were causes of stampedes. Such disasters rarely cost human life, but many cattle were trampled to death, and horns and legs were broken. To prevent disturbing noises and to avoid stampedes, the cowboys crooned to the cattle under the stars on the lonely plains. They sang old ballads, popular sentimental songs, made up new ones, and adapted old ones.

Cattle thieving was common throughout the period. Although cattlemen's associations registered the various types of brands adopted by the cattle raisers, thieves became expert in changing original designs by making additions to them. As protection against such marauders, vigilance committees were formed and hanged the guilty. In addition, the horse rustler was always a menace. And the professional bad men of the West, like Bill Hickok and Henry Plummer, sometimes seized the cattle on the open plains; sometimes waylaid the cowboy as he came to town with his pay for an occasional spree.

While there were many individual owners of ranches and also partners who engaged in breeding cattle for the long drive, often companies were formed. Businessmen, bankers, senators, and others in the East formed companies to engage in the cattle trade and much eastern capital was invested in it. British capital also was applied. By 1884, it was estimated that more than $30,000,000 of British funds had been invested in the industry. Among large Scottish and English enterprises were the Prairie Land and Cattle Company, the Matador Company, and many others. At this time more than 100,000,000 pounds of beef were being shipped annually from the plains to Great Britain. As a result, a commission of Parliament was sent to the United States to visit the West and to report on conditions.

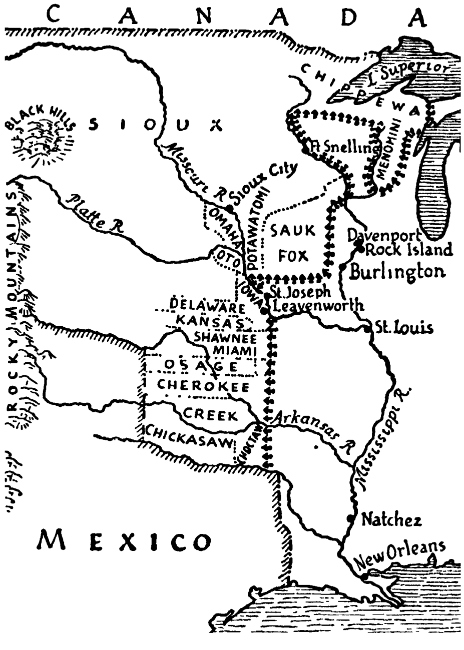
By the decade of the eighties many factors were working against the continuance of the long drive. The railroads had made possible the range industry, but they also put an end to it as they penetrated all parts of the West, bringing permanent settlers. The range industry of the plains reached its height about 1884. But by that time the farmers or nesters (so-called contemptuously by the cattlemen), were settling on the range, homesteads were being taken up, and towns and communities were developing. The use of barbed wire (patented first by J. F. Glidden, a farmer of Illinois, in 1873) was becoming universal and prairie farmers were enclosing their lands with wire fences. Thus the settlement of the West doomed the longhorn, the cattle trails, and the cowboys of the plains. The character of the industry changed somewhat in the twentieth century. From the great ranches of Texas, Wyoming and other western states, many ranch owners came to live in the towns; hands were no longer limited to the restricted work of cowboys but performed all types of ranch work; and through improved practices cattle of very high quality were bred.

The Sheep Drives

Sheep raising was first introduced into the West by early Spanish colonists when they occupied New Mexico, Arizona, Texas and California. It was not until after the Civil War, however, as large populations moved into the vast areas of the West that sheep production both for wool and meat, increased in a remarkable way in that section of the country. From 1840 to 1860 the raising of sheep for wool in the East had declined drastically. But during the same period, the annexation of territory that was formerly Mexican brought under the American flag vast grazing areas already possessing Spanish flocks. In the East, as the Civil War came on and cotton grew scarce, wool production was speeded up. But the westward trend in sheep raising continued and crossed the prairies to the far West as many eastern sheep farmers turned to cereals and other more profitable products. Descendants of Spanish flocks were also moved north from New Mexico to California and to Oregon.

After large flocks had been bred in Pacific coastal areas in the seventies and eighties, they were driven into Montana, Nevada, Wyoming and Colorado, and from New Mexico, they were driven especially to Wyoming, Colorado, and Texas. From Colorado and Wyoming the drives trailed into Kansas and Nebraska. By 1885, Texas had become the principal southern market for California sheep. By the end of the century, the sheep trails had ended as lands were taken up and occupied. Shipment by railroad took the place of the long sheep drives. The states of the Rocky Mountains and Pacific areas became important in producing wool, mutton and lamb while the East, under the stimulus of urban food markets, stressed mutton breeds.

The story of the sheep drives across the great areas from the Pacific, over the mountains and across the plains as the trails changed from westward to eastward during the last quarter of the nineteenth century is full of interest. The shepherds or *pastores* were perhaps not quite as picturesque as the cowboys of the same period, but their lives were filled with similar dangers and adventures — perils from floods, Indians, outlaws, wolves, coyotes, eagles and poisonous plants. They had to contend also with the problems of gathering the flocks from small owners, of preparing for the drive, of shearing, of controlling disease, of passing inspection in territories and states, and of finding running water, especially in the sun-baked desert country. Flocks were driven in bands of from 2,500 to 7,000 or even more. The cowboys loathed the sheep men and when their paths crossed on the prairies and plains, there were frequent clashes and fights. Intense rivalry developed between the cattlemen and sheepmen over the use of the best grazing lands. After sheep had nibbled short grasses on the range for months, the land would often become barren. The hoofs of browsing sheep destroyed the grass of the plains and foothills, and cattle would not drink from watering places used by sheep. *Pastores* were often driven from fertile ranges and at times besought the nearest court for a redress of their grievances, while a few controversies ended in bloodshed. As was the case with the cow country, the story of the sheep drives ended before the close of the century, but by this time great sheep ranches had been established in the mountain and Pacific areas of the far West.



THE EASTERN BOUNDARY OF THE INDIAN LANDS

Problems of the Indians

As the frontier swept into the western prairies and plains, the plight of the Indians became tragic. As early as 1825 a plan was evolved to move all Indians living east of the Mississippi to the region west of the river. The law of 1830 was intended to carry this out. Then followed the attempt to establish a "permanent" Indian frontier by a line of military posts from Fort Snelling southward. Every effort was made by treaty and otherwise to move the red man to his home in the "Indian country," where he might live on reservations. At the same time a project was discussed for building a series of strong stone forts to guard the boundary. But before it could be carried out, Americans were pushing through Indian country over the Oregon Trail, the Santa Fé Trail and other routes to Oregon and California. The opening up of the territories acquired from Mexico in 1848 and of Kansas in 1854 put an end to the plan of dividing the continent between the white man in the East and the red man in the West.

After the Civil War, because of widespread Indian uprisings, it was decided not to permit the tribes to rove over the West. In 1871, Congress abolished the system of making treaties with the Indians and assumed jurisdiction over the administration of their affairs. By this time the building of railroads, the establishment of army garrisons, the development of cattle and sheep ranges, the unending caravans over westward routes, the building of communities, and the killing off of the buffalo or American bison seriously interfered with Indian life on the plains.

During the building of the Union Pacific and Kansas Pacific Railroads, vast herds crossing the tracks frequently stopped trains. Yet within a few years the bison were almost totally destroyed by hunters from all parts of the country and from Europe, as well as by those who systematically exploited the hunting grounds for the purpose of selling the meat in the East and the robes in many parts of the world. By 1875, there were two groups of the animals — the northern herd extending into Canada, and the southern herd. The latter was practically extinct by 1878, although a few survivors were not killed until 1889. The northern herd was exterminated by 1884 except for a few scattered animals. A census made in 1889 showed a total of only 1,091 American bison existing throughout the entire world. Since that time individuals and organizations have been aroused and as a result the number of buffaloes has increased. The American Bison Society was organized in 1905 and largely through its efforts the danger of the complete extinction of the great animal was ended.

The extermination of the buffalo seriously affected the life of the Indians of the plains for their civilization, including their religion, was bound up in the shaggy creature in the same manner that maize was vital in the culture of the tribes farther east. The Indians used the bow and arrow as well as the rifle to capture and kill the animals which were stalked, stampeded over cliffs, driven into cul de sacs, or pursued on horseback. The Indians utilized all parts of the buffalo — the hide for shelter, clothing, and bags, the flesh for food, the bones for knives, hoes and other implements, the teeth for ornaments, and the tendons for thread and bowstrings. As a result of·the disappearance of their means of livelihood the Indians of the plains were helpless at a time when they were caught viselike between the moving frontiers of the east and the west. At the same time the lack of cooperation between Indian agents, the army, and Congress in administering Indian affairs became more and more apparent and many tribes took to the warpath again.

The predicament of the Indians brought a renewed interest in their plight, although agitation for reform in their treatment had been going on for more than two decades. Helen Hunt Jackson was inspired to write *A Century of Dishonor* (1881), which was widely read. Eastern humanitarians organized the Indian Rights Association and the Lake Mohonk Conference of Friends of the Indians. Because of the interest in the red man and because of the need for a new way of treating with him, Congress passed the Dawes or General Allotment Act of 1887. The new policy was designed to break up Indian tribal relationships and to put an end to the idea of the Indians as "domestic nations." It provided that the President through special agents could allot lands to the members of any tribe — 160 acres to the head of a family and lesser amounts to each of the others, including children. The lands were to be held in trust by the government for twenty-five years and full title was then to be granted the individual. In the meantime citizenship was conferred upon those holding allotments. The surplus tribal lands were to be open to white settlement by the United States and the proceeds from their sales were to be used in the interests of the Indians. Thus millions of acres of tribal lands became available for white settlement.

The Dawes Act proved to be unwise in many respects. Some Indians strenuously objected to the twenty-five year waiting period for a clear land title; others who received allotments showed that they were not ready to assume the responsibilities of citizenship as drunkenness increased. Frauds were also perpetrated on the government and on the red men regarding Indian lands. As a result of the defects of the law, the Burke Act of 1906 provided that citizenship should not be granted until full title had been obtained to the land, that complete ownership was to be granted at the discretion of the President, and that liquor should not be given or sold to Indians who were not citizens. This enabled the government to continue paternalistic control over the Indian in order to safeguard him against debauchery and exploitation. But the legal and political status of most Indians was anomalous. As a result, an act of 1924 conferred citizenship upon all those who were not already citizens. Ten years later, the Wheeler-Howard Indian Reorganization Act of 1934 reversed the policy of land allotments and provided for the conservation and enlargement of remaining Indian lands held by the United States in trust for the Indians. On reservations, by a majority vote, Indian tribes could adopt a constitution for social self-government. Provision for educating promising Indian youths in trade schools, high schools and colleges, adopted in earlier acts, was continued. In order to encourage economic development on the part of tribes and individuals, a revolving fund provided loans to be made to Indian-chartered corporations.

The Dawes Act of 1887 did not apply to the so-called Five Civilized Tribes: the Cherokee, Creek, Choctaw, Chickasaw and Seminole. These tribes had been moved in 1820–1845 to what was called Indian Territory, originally what is now most of Oklahoma. They held Negro slaves and joined the Confederacy during the Civil War. After the war they were forced to cede the western part of their lands to the government as a home for other tribes. One area near the center of Indian Territory was not included in any reservations and was known as "Unassigned Lands." Boomers attempted to settle here from time to time, but were ejected by United States troops. Demands from squatters and cattlemen resulted in opening up to settlement in 1889, the Unassigned Lands and also the Panhandle (the proposed territory of Cimarron), which was also outside any state or territory. The next year the Territory of Oklahoma was created. In the years that followed "runs" occurred as parts of the western lands were opened up. In the meantime, because the Dawes Act did not apply to the Five Civilized Tribes, the Dawes Commission was appointed in 1893 to induce them to abolish their tribal governments and to take up their lands in individual allotments. By 1906, this was accomplished. The next year the Territory of Oklahoma and Indian Territory were united and admitted to the Union as the forty-sixth state. By this time, oil production, which had begun about 1900, was rapidly increasing and in time it brought great prosperity and wealth to the region, in which many Indians shared.

The Frontier Thesis

Before the end of the nineteenth century, the American frontier had disappeared. As early as 1844, Ralph Waldo Emerson suggested the influence of the West on American thought and culture. Others expressed similar ideas in the years that followed. It was Frederick J. Turner, a young professor in the University of Wisconsin, who, in 1893, in a brief paper "The Significance of the Frontier in American History," which was followed by other writings, led the way for a school of American historians, who have insisted that the West has been a powerful and unique factor in the development of America.

Briefly stated, the frontier hypothesis stresses the idea that the experiences of westward-moving peoples on the successive frontiers have had a great effect and influence on American thought, economy, and life. The existence of cheap and free lands; the advance of western settlement; the development of individual traits, especially the restless optimism, the coarseness, the dogged persistence, the acuteness, and the physical toughness of the frontiersmen; the rise of institutions; the solid economic development; and the feeling of equality together with the spread of democracy, according to this theory, explain American development and civilization. It assumes that the age of the frontier, with its opportunities as well as its problems, has passed and become a part of history, but that its influence underlies all American culture.

In the development of American ideals and way of life, the European background has also been important. Material development and activities were at first European and some of those early influences remained, for they were basic and were kept alive to some extent through constant immigration and contacts with the Old World. Likewise, the comparatively free institutions of the English colonies as contrasted with those of the French, Dutch, and Spanish colonies were due not entirely to the wilderness environment, but to the ideas and customs brought from England. And in tracing the development of democracy to which the West made great contributions other factors, such as the industrial revolution, which resulted in herding workers into urban areas, completely changing the ways of living for increasingly large numbers of people, must be considered. But the frontier was a mighty and potent force during a succession of generations and its influence was woven into the fabric of American civilization.

CHAPTER XIX

The Agrarian Movement

Basic Problems of the Farmers

From the time of the Civil War to the early twentieth century the western migratory movement, unequalled in the history of the modern world, resulted in the establishment of more than a million farms in areas that had never before been settled. Prior to the Civil War agriculture had been predominant as evidenced by the control of the agrarians over the economic, political and social life of the country in spite of the influence of industrialists, merchants, bankers, shippers, lawyers and speculators. After the war, industrialization developed in the East in a remarkable way and a dynamic urban society came to dominate the national scene instead of a relatively static, individualistic rural society. Although farming was expanding and was being transformed through labor-saving machinery, cheap or free lands, improved transportation, the single crop system, and world-wide markets, farmers as an economic class fell behind industrialists and businessmen in influence and power. At the same time they were confronted with problems that seemed impossible to solve. For most of the thirty years after the Civil War, farmers, especially of the West and South, were victims of rising or standard costs for their supplies and of generally falling prices for their products. Hundreds of thousands of independent farmers could not easily combine to raise prices or to control output as large numbers of new farms appeared each year. Farm associations that sprang up from time to time could not adequately cope with such problems. Production increased so rapidly that stabilization was impossible. Then, too, the single crop system and the intensive farming of the Middle West, required machinery and labor saving devices. The production of wheat, for example, introduced capitalistic farming where the risks were greater and crop failures more hazardous than in subsistence farming. Farmers frequently had to mortgage their lands in order to purchase equipment or to tide them over an emergency. Eastern mortgage companies loaned money at rates from 8 to 15 per cent or more. During the period from

1870 to 1897, such fixed charges and increasing taxes were constant burdens to the agrarians, who were powerless to prevent the prices of their products from sliding downward. Several crop failures or a sharp decline in farm prices often meant foreclosure. Yet some farmers in favored sections were saved from disaster by the increase in land values as settlement grew more dense. The depressions of the period seriously affected farmers as prices reached low levels. Following the drought in the Upper Mississippi Valley from 1887 to 1889, more and more American homesteads were mortgaged. By the latter years of the century more than half the farms in the Middle West were mortgaged and large numbers of them were foreclosed. As a result, many agrarians were forced to become tenant farmers. Among other factors in this period of acute farm distress was the failure of gold production to keep pace with the enlarging economic system.

Farmers sought many remedies — lower railroad rates and charges, increased currency and inflation, and other panaceas. Legislation did not aid much. Organizations and third political parties did not solve basic problems. A bitter and unhappy struggle was waged until the end of the century. Then new conditions and the beginning of prosperity put an end to extreme agitation for about two decades as prices slowly rose, crops on the whole were good, and domestic and foreign markets absorbed surpluses. However, farm mortgages remained a problem and farm tenancy increased.

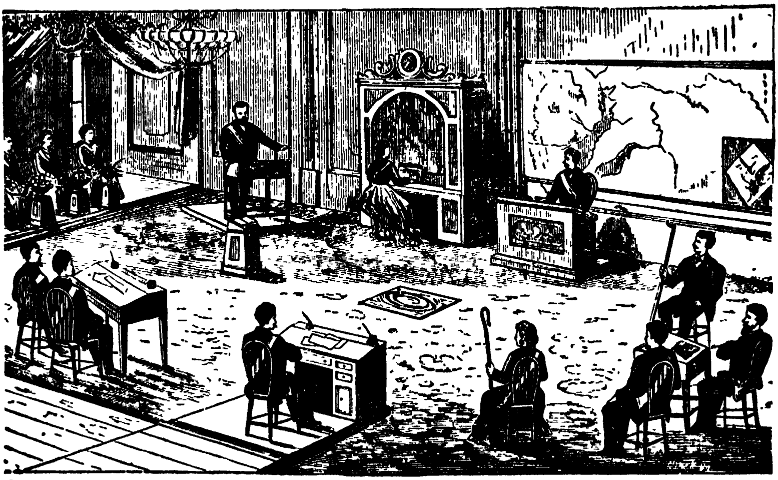
The Rise of the Granger Movement

Out of the problems faced by the agrarians arose the first important farmers' organization in American history. The Patrons of Husbandry, from which blossomed the Granger Movement, had its beginnings in the work of Oliver H. Kelley, a clerk in the federal Bureau of Agriculture. After the Civil War, Kelley was sent on a tour of investigation through the impoverished South. He was impressed by the traditional and outworn methods of southern agriculture and by the lack of cooperation among southern farmers. He gave up his position and with a number of associates organized the first Grange in Washington in 1867. Attempts to interest farmers in the East in his organization failed and in 1868, he went to his early home in Minnesota. His plan met with almost immediate and phenomenal success in the Middle West. By the close of 1869 there were thirty-seven active Granges in Minnesota and by the next year the organization had expanded into nine widely separated states. The panic of 1873 stimulated the movement and Granges were established throughout the country. In 1876, the order reached its peak with a membership of more than 850,000 and then drastically declined until more recent years, which have witnessed a slow but steady growth of the National Grange. The center of early Grange activities was the grain-growing regions of the Upper Mississippi Valley.

When Kelley organized the Patrons of Husbandry, he was simply applying to the farmers ideas that were current in the post-Civil War period as numerous organizations — patriotic, fraternal, labor, and others — were being formed. The Grange was a secret ritualistic order, open to both men and women. Its local units were knit together by a state and a national organization. One of its objectives was to encourage sociability among farmers through picnics, socials and meetings, thus developing a bond of unity and an understanding of mutual problems, which could result in joint action. Another aim was educational as fairs and exhibitions of live stock and machinery were promoted and provision made for lectures and educational meetings, especially during the winter season when farmers could attend them. Still another aim was that of cooperative buying and selling. While the National Grange in the beginning failed to work out a comprehensive program of cooperative enterprise, local and state Granges undertook various plans and methods. A most general procedure was to employ agents who would market farm crops most profitably and force manufacturers of farm machinery and other products to sell more cheaply. Grange cooperative stores, where goods were sold at cost, were also common. In 1875, the National Grange recommended the British Rochdale plan, whereby stock was widely distributed in small shares and savings were effected, not by selling at cost, but by charging regular prices, the profits being divided among the members according to their purchases. Stores modeled on this plan prospered for a time in parts of the South and West, particularly in Texas. Cooperative creameries, cheese factories, pork-packing establishments, farm implement works, and linseed-oil factories were established. In a few places cooperative banks to provide credit at low rates of interest to farmers were projected and in a dozen states mutual fire and life insurance companies were set up. All the cooperative enterprises, however, were short-lived because of lack of capital, unfamiliarity with business methods, and competition with merchants and corporations. Serious competition also came from mail-order houses which were formed at this time, among them Montgomery Ward and Company, Chicago, the first important one. Another objective of the Grange was to force down railroad rates and to secure regulation of the carriers in the interests of the farmers. In this they were successful.

Granger Legislation

The farmers of the Middle West found that they were at the mercy of the railroads in the transportation of their crops — usually of a single type, such as corn or wheat — and for the storage of their grain in railroad-owned warehouses. They also believed that the high rate of transportation greatly increased the cost of machinery and other types of manufactured goods that they used. The early attitude of welcome toward the railroads by farmers in the more settled regions of the West now changed to hostility as they branded rates and charges as exorbitant and heard with astonishment stories of watered stock, pooling, and corruption on the part of the carriers which were largely owned by eastern financiers. But where railroads were lacking as in northern Wisconsin, central Kansas, and Nebraska, farmers still welcomed railroad construction and by their votes supported local subsidies through county and town governments.



From "The Grange," published under direction of William Saunders in 1874

A GRANGE MEETING

At the time that the Grange was beginning to rise — in 1869 — the legislature of Illinois enacted a measure requiring railroads to charge only "just, reasonable, and uniform rates," but no adequate means of enforcement was adopted at this time. The next year, a clause in the new state constitution of Illinois required the legislature to pass laws correcting railroad abuses and extortions. In 1871, the legislature of that state established maximum freight and passenger rates and established a board of railway and warehouse commissioners to enforce the law. Beginning in the Middle West and spreading into the rest of the country, state legislatures passed laws similar to those of Illinois for the purpose of regulating railroads, warehouses and elevators. The Grange did not organize a political party, but at meetings, picnics, and socials, members were exhorted to elect to office only those who shared their views. There were rumblings of revolt from older political alliances at this time but they did not materialize, except in the form of minor political groups. Independence Day, 1873, long remembered by agrarians as the Farmers' Fourth of July, marked an important step in the agitation against monopoly as a *Farmers' Declaration of Independence* was read to rural audiences in many parts of the country. Through agitation, demands for reform, victories of endorsed candidates at the polls, and lobbying in state legislatures, a mass of railroad regulatory legislation was adopted which became known as Granger laws.

At first the railroads refused to obey the regulatory laws and then attacked them through the courts as improved and stricter legislation was adopted. The carriers argued that the assumption of such powers by states violated the due process clause of the Fourteenth Amendment, which sets forth that no state shall "deprive any person of life, liberty and property without due process of law." Another line of argument stressed that within the meaning of Article I, Section 10 of the Constitution the charters granted to railroads were contracts which were being impaired by the Granger laws. Still another argument insisted that only Congress had the right and power to regulate interstate commerce. The courts, however, decided against the railroads — until 1886.

One of the first important decisions of the Supreme Court regarding state regulation of storage and railroad rates was Munn *vs.* Illinois (1876) involving the validity of the Illinois law of 1871 which fixed maximum rates for storing grain in warehouses. A Chicago warehouse company, Munn and Scott, was found guilty in 1872 of charging higher rates than the law stipulated. The case was taken on appeal through the courts and finally reached the Supreme Court. In answer to the contention that the fixing of maximum rates amounted to the taking of property without due process of law the Court stated that the government could regulate prices in businesses "affected with a public interest" as had been done in England and other countries for centuries. Replying to the argument that only Congress could regulate warehouses which "may become connected with interstate commerce," the Court decided that such regulation was of domestic concern and "until Congress acts in reference to their interstate relations, the

State may exercise all the powers of government over them, even though in so doing it may indirectly operate upon commerce outside its immediate jurisdiction." The decision was of great significance and was followed by another which applied directly to the question of railroad rates. In the case of Peik *vs.* Chicago and Northwestern Railway Company (1876), the railroad contended that the legislature of Wisconsin could not lawfully regulate rates because the railroad crossed the boundaries of the state. The Court decided that the state had the right to do so within its boundaries, even if the carriers traversed them, because of the absence of federal legislation in this respect. Once again it was emphasized that "until Congress acts," the states possessed the power of regulation, otherwise there would be no control over such corporations.

Though Granger legislation affecting the railroads was held constitutional, it became impossible to make such laws really workable and efficient because a uniform policy could not be achieved. Nor could state boards or commissions effectively regulate railroads operating in several states. In addition, the remarkable expansion of railroad building in the decade of the eighties, when speculation ran riot, complicated the problem of regulation. As a result of these factors together with cut-throat competition among many roads on the one hand, and monopolistic practices, pooling and high rates on the other, large individual shippers were favored at the expense of their smaller rivals. Discriminatory rates favored one locality to the detriment of another, and rebates in many cases were excessive. Industries of all kinds as well as agriculture were affected by the confusing, sordid, and irrational operation of the railroads.

In 1886, the Supreme Court handed down a decision in the Wabash case[1] which seriously modified the decision in the Granger cases and made necessary federal legislation if the railroads were to be regulated at all. The case involved the "long-and-short haul" evil, for the railroad charged certain shippers more for carrying the same amount and type of goods from Gilman, Illinois, to New York City than from Peoria to New York City although Peoria was eighty-six miles farther away. The Court decided that the state had no jurisdiction in the matter as such regulation was in the field of interstate commerce and therefore strictly reserved to Congress. It was maintained that the authority of the state was limited to control over intrastate commerce. The decision led to the passage by Congress of the Interstate Commerce Act of 1887.

[1] **Wabash, St. Louis and Pacific Railway Company *vs.* Illinois.**

The Greenback Movement

While the Grange was attacking the railroads a new movement arose which was based largely on the quantity theory of money. It was similar in many respects to the movement of the agrarians in the years of distress following the Revolution. Again there was a demand for an inflated currency to benefit the debtor classes. As the condition of farmers of the Middle West became more and more serious, many Grangers joined with others in supporting a third party which emerged from the agitation. In tracing the origin of the Greenback movement it is necessary to go back to the years immediately following the Civil War.

After the war, the more conservative and dominating East demanded the re-establishment of specie payments in place of the paper basis of exchange which had prevailed since the first issues of greenbacks in 1862. A reaction developed, supported largely by the debtor farmers of the West. The heavy indebtedness of the farmers, the high prices for non-agricultural products, the steps taken by Congress to contract the greenback currency, and the fear of declining prices made them advocates of continued and broader inflation. The central point of the "Ohio Idea," sponsored by George H. Pendleton, was the payment in greenbacks of the large issue of war bonds known as the "five-twenties," for no specific provision had been made for their payment in gold. The idea was indorsed by the Democrats in 1868. In addition to wiping out the government's large interest payments and ending such tax exempt securities, the increase of greenbacks would result in the desired inflationary currency. The plank in the Democratic platform of 1868 read: "One currency for the government and the people, the laborer and the officeholder, the pensioners and the soldier, the producer and the bondholder. . . ." The movement included opposition to national bank currency and also to national banks which could not lend money on the security of real estate, the only collateral that most farmers had. These ideas had support in both major parties in rural regions, but they became a part of the agitation carried on by minor parties in the years that followed. In 1872, only the new Labor Reform party officially supported greenback policies.

The panic of 1873 brought an increase in local greenback clubs which provided the background for a new third party. Few state Granges were avowedly inflationist. But two of them, the Indiana and Illinois Granges, furnished the leadership for a greenback party. A group of agrarians from several states together with representatives from the Labor Reform party met in Indianapolis in 1874. A permanent organization was effected and a national nominating convention met in the same city in 1876. Although the party is usually referred to as the Greenback party, it was known at different times as the Independent National, National, and Greenback Labor party. It presented tickets in three presidential campaigns, calling for a number of reforms, radical for that day, and also for the non-resumption of specie payments. Its greatest strength was exhibited in the congressional election of 1878 when it polled a million votes. It died in the campaign of 1884. Before this time, specie payment of greenbacks had begun.

From "Harper's Weekly," April 9, 1870

BROTHER JONATHAN GREETS WITH JOY THE RETURN OF SPECIE

Meanwhile, a political struggle had been taking place in Congress between the inflationists, who largely represented the agrarian debtor classes, and the conservatives or "sound money" men, who demanded the resumption of specie payments in order to bring the greenbacks to par, stabilize the currency, and enhance the credit of the government. At the close of 1874, about $382,000,000 in greenbacks were in circulation. Partly because of the panic of 1873 the Republicans lost their majority in the House the next year. While they still had the necessary votes, they passed the Resumption Act in January, 1875. It provided for the retirement of greenbacks to $300,000,000; it recalled fractional paper currency which was to be replaced by silver coins; it withdrew the charge for coining gold; and it directed the Secretary of the Treasury to sell bonds in order to obtain the gold to be used in redeeming legal-tender notes presented for redemption on and after January 1, 1879. The inflationists, however, were able to modify the law in 1878 before it went into effect, by securing the enactment of a measure providing that the amount of greenbacks then outstanding, a total of $346,681,000, should remain in circulation. Resumption was accomplished without difficulty. There had been rumors of a conspiracy to make a run on the Sub-treasury in New York, but on the first day that greenbacks could be redeemed for gold, only $135,000 of notes were presented there for coin and $400,000 of gold exchanged for notes. By this time, greenbacks rose to par and it was quite evident that people preferred paper to metallic money.

Beginning of the Free Silver Movement

Owing to the mining of vast quantities of silver in Nevada and other far western states the price of silver in the world markets began to decline after 1873 and many European monetary systems were affected by the flood of American silver. Under earlier laws silver could be taken to the United States mint to be made into silver dollars, but actually none had been presented for years because the ratio was 16 to 1 (fixed in 1837). With gold sixteen times more valuable than silver, the owner of silver could get more for it in the open market than in having it minted. Thus the silver dollar was omitted from the mint reform act of 1873, although provision was made for a special Oriental trade dollar weighing 420 grains instead of the older standard of 412½ grains. After 1876, this Oriental trade dollar was no longer legal tender within the United States.

As the price of silver declined, the producers in the West decided to send their bullion to the mint to be coined into dollars. But they discovered that the law of 1873 had omitted the standard silver dollar from the coinage. Persistently, westerners tried to show that eastern bankers and legislators had conspired to demonetize silver. Excited partisans denounced the whole affair as the "Crime of '73." The result was a political movement, promoted by the silver interests and backed by the agrarian and inflationary elements, for a return to bimetallism or the free coinage of silver.

The increasing labors of the new pressure group almost achieved bimetallism. The chief opposition came from the business and industrial interests who believed that the free coinage of silver would diminish the purchasing power of their incomes and enable their debtors to discharge their obligations in "cheap money." In Congress, representatives of the western silver interests and the farmers made speeches stressing that silver was the people's currency whereas gold belonged to the aristocracy. Senators from the West and South, especially, indulged in flowery oratory during the years 1875–1878 as silver was personified and almost deified. Senator Morgan's remarks were typical:

> Silver enjoys this natural supremacy among the largest number of people because the laboring people prefer it. They use it freely and confidingly. It is their familiar friend, their boon companion, while gold is a guest to be treated with severest consideration; to be hid in a place of security, not to be expended in the markets and fairs. It is a treasure and not a tool of trade with the laboring people. A twenty-dollar gold piece is the nucleus of a fortune, to remain hid until some freak of fortune shall add other prisoners to its cell. But $20 in silver dimes is the joy of the household, the substance of things hoped for, the evidence of things not seen. . . . Silver is the great arteries of commerce — what the mountain springs are to the rivers. It is the stimulant of industry and production in the thousands of little fields of enterprise which in the aggregate make up the wealth of the nation.

During these years a crop of silver bills were started on their way through the legislative hopper. In 1877, a bill sponsored by Representative Richard P. Bland of Missouri providing for the free coinage of silver passed the House by a large majority vote. In the Senate it was stressed that the measure would jeopardize Secretary of the Treasury Sherman's plans for resuming specie payments. The Secretary suggested limited purchases instead of free coinage and an amendment to the bill sponsored by Senator William B. Allison of Iowa was made and accepted by both Houses. President Hayes vetoed the measure on the ground that the market value of the bullion in the silver dollar would not be equal in value to that of the gold dollar and therefore harm would result from making it legal tender. But Congress promptly passed the bill over his veto by the necessary two-third majority vote.

The Bland-Allison Act of 1878 provided for the coinage of silver dollars of 412½ grains of standard silver, which were to be legal tender for all debts, public and private except where otherwise expressly stated in the contract. The Secretary of the Treasury was authorized to purchase at market value each month not less than $2,000,000 worth of silver or more than $4,000,000 worth to be coined into silver dollars. Any seigniorage — the difference between the cost of the bullion and the money coined from it — was to be paid into the treasury. Holders of the silver dollars could deposit them with the Treasury in sums of $10 or multiples and receive silver certificates. The President was authorized to invite the countries composing the Latin Monetary Union and other European nations to join the United States in a conference to fix the ratio between gold and silver.

From the Library of Congress.

AS THE CARTOONISTS REGARDED THE SHERMAN SILVER PURCHASE ACT

Under the terms of the Bland-Allison Act, the Secretary of the Treasury purchased the minimum of $2,000,000 of silver bullion each month. Between 1878 and 1890 while the law was in effect, a total of $308,279,000 of silver was obtained and from this 378,166,000 silver dollars were coined, the difference of about $70,000,000 in seigniorage accruing to the government. Thus the currency of the country was greatly expanded, for under earlier laws from 1794 to 1873 only 8,000,000 silver dollars had been coined. The law also introduced a new kind of paper money — silver certificates, at first in denominations of $10 or higher but by a measure of 1886 silver certificates of $1, $2, and $5 were authorized. Not more than 60,000,000 silver dollars were in circulation at any one time; the rest of the coins was stored in specially-constructed vaults. For a time after the Bland-Allison Act was passed, extreme agitation among the westerners died down, to be renewed more strongly than ever a decade later, resulting in the Sherman Silver Purchase Act.

The Farmers' Alliances

As the Grange declined in the decade of the eighties, agricultural organizations known as alliances rose to prominence. Two great national alliances were formed. The National Farmers' Alliance (Northern or Northwestern Alliance) was established in 1880 by Milton George, editor of the *Western Rural,* a Chicago farm periodical. It developed into a loose confederation of strong state alliances having a large number of local societies in the Middle West, especially in Kansas, Nebraska, Iowa, the Dakotas, and Minnesota. Men like Jerry Simpson and William Peffer of Kansas, and Ignatius Donnelly of Minnesota, were leaders in the Farmers' Alliance in their respective states. The Northern Alliance grew and the agrarians sought joint action as prices continued to fall, as the cost of marketing facilities remained high, and as the dry weather ruined crops in the late eighties. Credit was fairly easy to obtain, but at exploitative rates on first mortgages. Non-land owners had little chance to get loans. The debt-burdened farmers of the "middle border" joined by the thousands in the hope that they could find some relief from their financial difficulties. When no relief came from the major political parties, by 1890 the Alliance had organized third-party tickets for local and state offices throughout the Middle West.

The origin of the Southern Alliance or the National Farmers' Alliance and Industrial Union goes back to 1874. It declined soon after its origin but took on new life in 1879. After 1886, under an aggressive president, C. W. Macune, it absorbed the Louisiana Farmers' Union, the Arkansas Agricultural Wheel and other local associations. Under varying names it became a strongly centralized organization. With the downward trend of cotton prices, many new members were obtained, cooperative buying and selling became more general, and a number of business exchanges were formed. The Southern Alliance, like the Northern, went into politics to secure relief, but avoided third-parties for fear that a split in white solidarity might lead to Negro participation in politics. During the period a subordinate Colored Farmers' Alliance and Cooperative Union was founded to look after the welfare of Negroes.

An attempt was made to bring the Northern and Southern Farmers' Alliances together at a meeting of a number of farmer and labor organizations in St. Louis in 1889. Unity of purpose was achieved to a certain degree, but union of organization failed. The declining Knights of Labor joined the farm groups whole-heartedly in a program designed to bring rural and urban workers closer together. The two alliances in their programs called for the free coinage of silver and increased paper money. They agreed on the need for reducing and equalizing taxation and for reclaiming from the railroads all lands held in excess of actual needs. Both favored government ownership and operation of the means of communication and transportation. But from this time on, the divergent economic interests of the western and southern farmers forced them farther apart, especially as the Northern Alliance undertook to form a new third party which became known as the People's or Populist party.

The distress of the farmers in the late eighties, the meetings at St. Louis and elsewhere, together with the declining price of silver — to a ration of 20 to 1 — and the discontent in mining regions brought the smouldering issue of the free coinage of silver once again prominently before Congress. Promoted by the representatives of the silver interests together with the agrarians and inflationary elements, the demand for complete bimetallism was renewed with vigor as the expansion of the currency continued to be one of the strongest tenets in the economic creed of westerners. In 1889 and 1890 the admission of six northwestern states — North and South Dakota, Montana, Washington, Idaho and Wyoming — gave the West increased power and strength in Congress. It was obvious that the silver issue was again important.

Out of the drive for tariff increases by eastern representatives, in 1890, the inflationists tried to get the free, unlimited coinage of silver. As a result of the two issues, the westerners supported the high McKinley tariff bill although opposed to its protective schedules, while the representatives of the East stifled their conservative consciences and voted in return for the Sherman Silver Purchase Act. This law did not provide completely for free silver because of eastern opposition and because it was feared that President Harrison might veto such a bill. It did provide for an increase in the purchase of silver to 4,500,000 ounces a month, practically all the metal that was produced in the country at that time. The act also authorized payment for the silver bullion and for the issuance of notes which were made full legal tender except where other provisions were made in a contract. It also made the notes redeemable on demand in either gold or silver at the discretion of the Secretary of the Treasury. The "coin certificates" or "treasury notes" were redeemed in gold, an act which put the government in serious financial straits in the panic of 1893. The law was in effect until 1893, when, despite intense opposition, it was repealed as the disastrous depression struck the country. Between 1890 and 1893, the government bought silver amounting to $155,931,000. But the expansion of the currency at this time failed to raise prices, largely because the per capita circulation was low. It was $23.02 in 1885; $22.88 in 1890; $23.24 in 1895. In 1905 it was $31.51. After 1897, prices went up concomitantly with per capita circulation, but no argument should be made between the two, for other factors were involved.

The Populists

The success of local parties in the West, sponsored by members of the Northern Alliance, led to a new national political party. Under the leadership of the Alliance together with representatives of the Knights of Labor, a convention was held at Cincinnati in 1891 to form a third party. About 1,400 delegates were present, most of whom represented five western states. Plans were laid to meet the following year. In February, 800 delegates met at St. Louis and a nominating convention was held at Omaha on July 4, 1892. At the St. Louis meeting a platform was drawn up which revealed the emotion, impulses and principles back of the new party. In part its preamble stated:

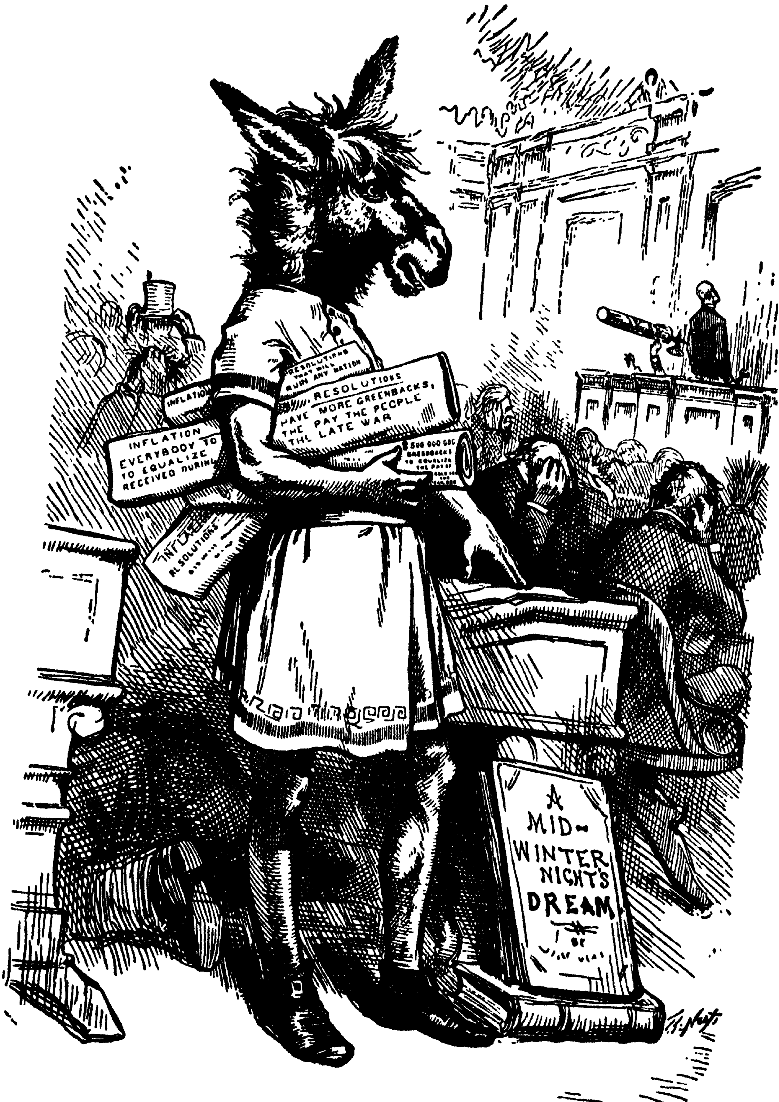
> The national power to create money is appropriated to enrich bond-holders; a vast public debt payable in legal-tender currency has been funded into gold-bearing bonds, thereby adding millions to the burdens of the people.
>
> Silver, which has been accepted as coin since the dawn of history, has been demonetized to add to the purchasing power of gold by decreasing the value of all forms of property as well as human labor, and the supply of currency is purposely abridged to fatten usurers, bankrupt enterprise, and enslave industry. A vast conspiracy against mankind has been organized on two continents, and it is rapidly taking possession of the world. If not met and overthrown at once it forebodes terrible social convulsions, the destruction of civilization, or the establishment of an absolute depotism.

With a declaration "that the union of the labor forces of the United States this day consummated shall be permanent and perpetual," the platform demanded "a national currency, safe, sound and flexible, issued by the general government only," the free and unlimited coinage of silver and gold at a ratio of 16 to 1, a subtreasury plan, a graduated income tax, government ownership and operation of railroads and telegraph lines, and the abolition of land monopolies. In order to attract the labor vote, resolutions were adopted endorsing restrictive immigration, the eight-hour day, and the abolition "of a large standing army of mercenaries, known as the Pinkerton system." The new party showed remarkable strength in the election. With General Weaver of

Greenback fame as its presidential candidate, the party secured a million votes and won twenty-two electoral votes. Six senators and seven representatives were elected.

The years that followed were depression years. They were marked by severe unemployment, the lowest prices ever recorded for farm commodities up to that time (1896), and the repeal of the Silver Purchase Act (1893). The Populists looked forward to the next election and carried on a vigorous and spectacular campaign emphasizing the free coinage of silver. All over the country meetings were held in which monetary panaceas as well as economic theories were discussed. Songs were sung and the cause of silver became a holy crusade in which gold was the diabolical symbol of capital, wealth and plutocracy, always opposed to the interests of the masses. It was a season of fetishes and slogans for the free silver cause. Among the new leaders during the period of Populist agitation, many were popular orators, demagogues, and persons of striking personalities. Most of the older leaders were cast aside. Among the more spectacular was "Sockless Jerry" Simpson of Kansas, so-called because of an obvious personal eccentricity. Another was Governor "Bloody Bridles" Waite of Colorado, so nicknamed for remarks he made while using the state forces to impede the action of the county sheriff at the Cripple Creek mining strike in 1894. "It is infinitely better," said Governor Waite, "that blood should flow to the horses' bridles than that our liberties should be destroyed." The evangelical political oratory of bewhiskered William Peffer made him a Populist Senator. Mrs. Mary Elizabeth Lease, an able orator and organizer, expressed the spirit of the western movement when she said: "We want money, land and transportation" and insisted that "Kansas suffers from two great robbers, the Santa Fé Railroad and the loan companies." Her most famous statement was "Kansas had better stop raising corn and begin raising hell."

The Populists did not make great gains in the campaign of 1894 for the reason that many Democrat and Republican candidates supported the Populist program in those states where such ideas were generally accepted. But the party felt confident of victory in 1896, for it expected that neither major party would endorse the free coinage of silver. But the oratory of William Jennings Bryan in the Democratic convention of 1896, together with western demands, did much to commit the party to the issue although the gold Democrats refused to accept it and broke away from the party. Bryan presented the free coinage question as a "cause as holy as the cause of humanity." He called for another Jackson to lead the Democratic hosts "against the encroachments of organized wealth" and brought his hearers to their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A MID-WINTER NIGHT'S DREAM
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From "Harper's Weekly," March 6, 1880

"Greenback the Weaver"

feet with his closing defiance to those who advocated a gold standard alone: "You shall not press down upon the brow of labor this crown of thorns. You shall not crucify mankind upon a cross of gold." The party committed itself to the "free and unlimited coinage of both silver and gold at a ratio of 16 to 1 and that the standard silver dollar be of full legal tender for all debts public and private." Bryan through the magic of his speech also made himself the candidate of the party. The Populists with their chief issue taken over by a major party were in a quandary but maintained a separate identity, with Bryan also as their presidential nominee. The Republicans stood for a gold standard and thus the issue on this point between the two major parties was clearly drawn.

DEMOCRACY
TO SILVER 16 TO 1
TO GOLD SOUND MONEY THE WORLD OVER

From a cartoon in "The New York Advertiser"

MISS DEMOCRACY IN A QUANDARY AS TO WHICH WAY TO GO BEFORE THE 1896 CONVENTION

The campaign preceding the election was one of education as people everywhere tried to understand basic monetary questions. Politicians and others tried to simplify such ideas as Gresham's law, the quantity theory of money and monetary standards. A flood of pamphlets and other publications descended on the country. *Coin's Financial School,* by W. H. Harvey, published in 1894, was the first of a large number of similar pamphlets issued in the interests of silver. Coin, depicted as a "smooth little financier," set forth the principles of money against a background of silver and replied to the questions of economists, bankers, merchants and others. He discussed the iniquity of the Crime of '73, problems of bimetallism and the repeal of the Silver Purchase Act. Through the use of graphic illustrations, homely allusions, glib arguments and the use of real names of prominent people, the book was clever propaganda for the cause of bimetallism. Other pamphlets appeared by those who believed in the gold standard. Newspapers and periodicals took up the fight. Professor J. L. Laughlin of the University of Chicago replied with *A Freak in Finance.* The Sound Currency Committee of the Reform Clubs in its semi-monthly publication *Sound Currency,* for May 1, 1895, included Horace White's article "Coin's Financial Fool," which attacked the arguments and conclusions of Coin. As the election drew nearer, publications about the controversy increased and the battle of the standards was on.

ONE OF THE PICTURES BY WHICH "COIN" HARVEY AROUSED THE WEST

While the popular vote of the two major presidential candidates was relatively close, the Republicans under William McKinley, the candidate of "Mark" Hanna, were completely victorious. The election settled the question of the gold standard although Congress did not enact the issue into law until 1900, for immediately on regaining power the Republicans directed their attention to the tariff. By 1897, prosperity was beginning to return. As prices rose in the years that followed, the Populist movement slowly died. The Populist party had wrecked the Farmers' Alliances which had been so prominent in the eighties and early nineties, and in turn the party also disappeared.

A Period of Slowly-Rising Prices

Between the end of the nineteenth century and the outbreak of the First World War, generally speaking, prices rose and continued in an upward trend. Many reasons have been suggested for the gathering forces of prosperity after 1897 (p. 524). While many farmers did not succeed in liquidating all their debts, and others paid off old debts and contracted new ones as they expanded their holdings or strove for a higher standard of living, slowly rising prices had a psychological effect in quieting agitation. A new degree of self-confidence and hope appeared, inspired by widening opportunities. The growing prosperity can be seen in better farm homes, especially in certain regions of the Middle West where sod houses and other types of temporary homes of the newer areas disappeared. In the most progressive parts of the country after 1900, gas and electricity came into use in many farmhouses and barns. The introduction of septic tanks, of heating and lighting systems, and of new household gadgets is another indication of the rising status of the farmer. More frequent train services and regular free mail delivery added to the conveniences of country life. By 1914 the more prosperous farmers were using trucks to take their produce to markets and some could boast of owning an automobile.

Between the years 1900 and 1914, the wholesale prices of manufactured goods increased 30 per cent while farm commodities rose 60 per cent. During the same period, farm property doubled in value. It is true that between 1900 and 1910 more than 3,000,000 people left the farms for urban areas, but a much larger number — immigrants and others — were finding farm homes in the West. New England and the eastern-north-central states, however, were experiencing a loss of farm population and income, a trend that was spreading to the middle Atlantic states. It was also true that during the first decade of the twentieth century while population increased 50 per cent, improved farm acreage rose only 15 per cent and during the next four years the number of cattle in the country fell almost 13 per cent. The dangers in these ratios were entirely obscured by the price increases which account for the apparent stability and prosperity of this period.

Improved economic conditions stifled any serious outbursts from the farmers. But the agrarian movement did not entirely die out. No new farmers' parties appeared, but various organizations were established, which for the most part emphasized economic cooperation. In 1902, two new farmers' associations were started — the American Society of Equity, and the Farmer Cooperative and Educational Union (the Farmers' Union). The former based its program on the principle of controlling production and withholding surpluses; the Farmers' Union stressed cooperative marketing. A Southern Cotton Growers Protective Association, in 1900, began a campaign for a reduction of cotton production through programs of diversification but without much success. In 1910, representatives of the American Society of Equity and of another farm society known as the Gleaners joined with several state farmers' organizations to form a Farmers' National Headquarters in Washington to serve as a lobbying agency. Seven years later a rival group created the National Board of Farm Organizations, which also lobbied in the interests of farmers. The National Grange continued its activities during the period although it was not as powerful as it had been earlier. While aggressive tactics and political third parties disappeared, farm organizations remained to serve a useful purpose in holding groups of farmers together to promote their own interests.

The period 1898–1914 was one of the most stable in American agrarian history as prices and land values slowly increased, as the agricultural standard of living gradually rose and as agriculturalists obtained more recognition in national affairs. But farm debts remained large and there was an increase in tenancy. Soil erosion and declining fertility were serious in many sections. Older sections in the Old Northwest were especially affected and many farmers were forced to abandon their century-old farms in the hill country of New England and New York. The chief problems were largely of production and not of the disposal of unmarketable surpluses. The United States was selling to foreign customers annually from about 150,000,000 to 200,000,000 bushels of wheat, about 8,000,000 bales of cotton, 1,000,000,000 pounds of pork, and also large quantities of tobacco and fruit. Agricultural commodities were the chief medium used to meet foreign obligations, for the United States was still a debtor nation. The government fostered research and education to make production more efficient and to solve farm problems.

Government Aid to Agriculture

The Department of Agriculture, established in 1862 under a commissioner, continued the work of gathering and distributing seeds as well as the scientific work which had been started by the Commissioner of Patents (p. 279). The work of the divisions of Chemistry, Entomology and Botany of the Department made much progress and new divisions were created from time to time. The success and achievements of the Bureau of Animal Husbandry in the field of animal diseases hastened the Department's elevation to cabinet status in 1889, when its head was made the Secretary of Agriculture. The Department then passed into a most expansive period when its work came to cover almost all phases of agriculture.

Much was done during the period in the field of agricultural education. The Morrill Act of 1862 provided that a state might receive 30,000 acres of public lands within its borders for each Senator and Representative it had in Congress, the proceeds from the sale of such lands to be invested and the income used to establish colleges to teach especially "agriculture and the mechanical arts." The land-grant colleges established under this law potentially provided a comprehensive system of agricultural research and experimentation. But, since the curricula and activities of these institutions were prescribed by state legislatures and were under separate state administrations, the materials of instruction and methods of teaching were not unified or systematized. By 1890, many influences aided to make the work in the land-grant colleges more effective and efficient. Among these, experimentation was most important.

Agricultural experiment stations were first established to provide instructional materials for the colleges and to investigate occupational problems. They proved to be a vital link between the Department of Agriculture and the colleges. The first state agricultural experiment station was set up at Wesleyan University, Middletown, Connecticut, in 1875. By 1887, fourteen states had such stations and colleges in thirteen others carried on equivalent work. In that year, the Association of American Agricultural Colleges and Experiment Stations was organized under the leadership of the Commissioner of Agriculture to coordinate the work of the individual stations. The Association of American Agricultural Colleges together with the National Grange and the Alliances brought about nation-wide sentiment in favor of legislation. Congress passed the Hatch Act (1887), which provided for annual subventions for the stations in all the states and territories. The subsidies were increased from time to time by subsequent legislation.

The Second Morrill Act of 1890 appropriated to the states funds for current educational purposes and encouraged the states to provide regular agricultural instruction. In the years that followed, federal aid was asked to carry on extension and institute work. From about 1870 state farm organizations, including the Grange, had made provisions for lecturers at farmers' meetings. By the end of the century the farmers' institute movement to carry agricultural knowledge to the farmers was strong and it was in full swing in the twentieth century. Demands arose for government aid for such activities. In 1914, the Smith-Lever Act provided federal appropriations for agricultural extension work by county agents in farm communities. Through this act students not attending colleges could secure instruction in agriculture and home economics, thus indirectly enjoying some of the benefits of the work of agricultural colleges and experimental stations. The promotion of extension work on a national scale, aided by state and federal appropriations, brought an end to the farmers' institutes of the older type as their functions were absorbed by the newer movements. Agricultural education entered the secondary schools with the passage of the Smith-Hughes Act of 1917, which created a Federal Board for Vocational Education for the purpose of promoting training in agriculture, trades, industries, commerce, home economics, and the teaching of vocational subjects. It furnished funds for vocational education on condition that the states contribute an equal amount. Supplementary laws have extended the original activities in many ways, especially to vocational rehabilitation.

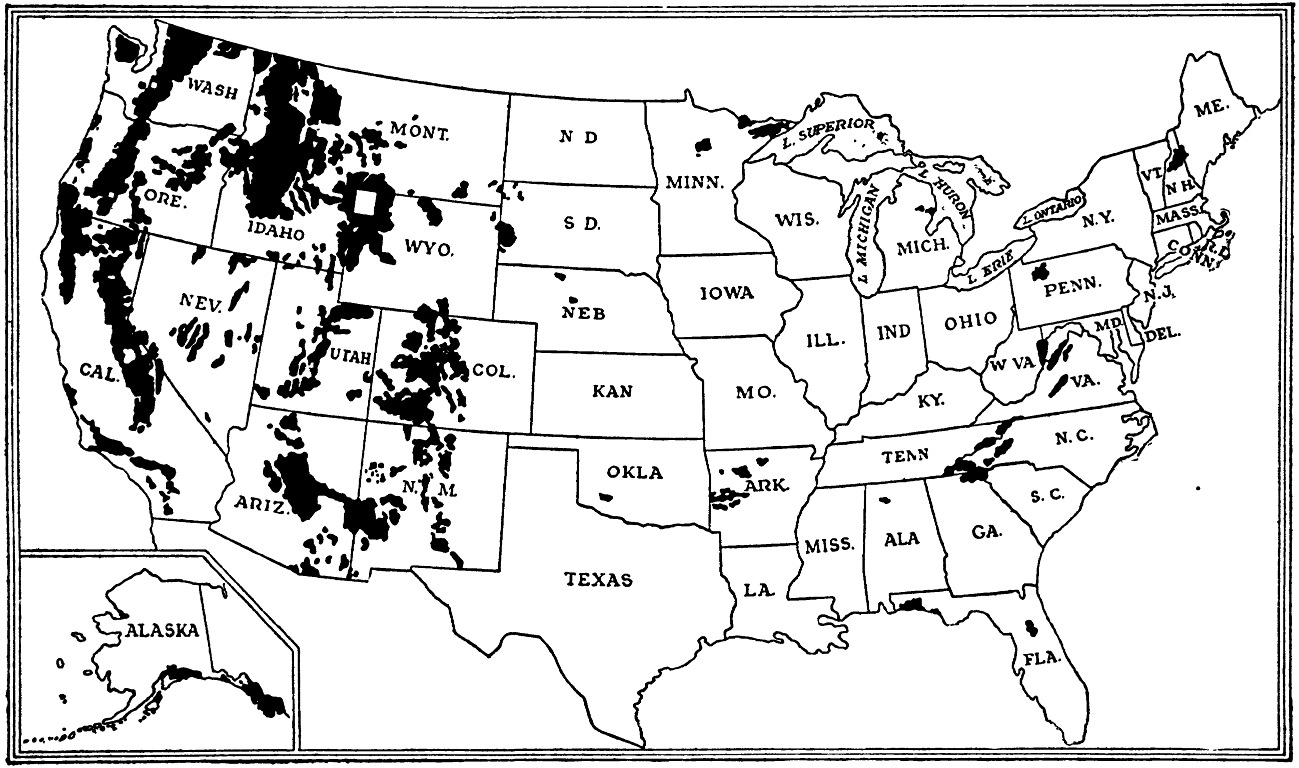
CHAPTER XX

The Conservation of Natural Resources

Beginnings of the Conservation Movement

By the latter part of the nineteenth century Americans in increasing numbers were becoming alarmed at the rate at which the nation's natural resources were being exploited, and especially at the destruction and waste involved. Throughout the growth and development of the country there had been much waste. Pioneers attacked the forests with ax and fire without thought of the future; hunters wantonly destroyed wild-life, often for the sport of it; farmers broke up rich soils and exhausted the fertility of the land without attempting to provide for its restoration; and miners adopted the easiest and most wasteful methods of securing the earth's treasures without concern for posterity. Capitalistic groups acquired large holdings and exploited the rich natural resources of the country. Moreover, little attention was paid to losses due to the ravages of nature or the carelessness of man. For example, fire swept vast woodlands and forests, damaging the soil and destroying timber, forage and wild-life. At the end of the nineteenth century economists and conservationists were pointing out that the forests would last only about a generation or so at the existing rate of wasteful exploitation and that coal would disappear in about a century, and that the usefulness of most other forms of natural resources would come to an end largely through greed and waste.

A movement to create Yellowstone National Park, as early as 1869, became an accomplished fact in 1872. The first steps in conservation can also be seen in the establishment of the office of the United States Commissioner of Fish and Fisheries, in 1871, because of the growing concern over the decline of the fisheries; in the communication to Congress, of the American Association for the Advancement of Science, in 1874, regarding conservation policies; in the authorization given to the Department of Agriculture, in 1876, to investigate the country's forest resources; in the earliest attempts made to irrigate semi-arid lands in the West; and in the laws passed toward the end of the cen-



FEDERAL FOREST RESERVATIONS

tury relating to forest lands. But after 1900 the trend toward reform in land policy and administration, as well as in other phases of national economic, social and political life, became marked. Theodore Roosevelt assumed leadership of the early movement and with his vigorous personality and dramatic flair urged the necessity for a well-rounded program of conservation. Beginning with his annual message of 1901, he did everything possible to bring the matter to the attention of the entire country until the masses came to understand the meaning of conservation and national welfare.

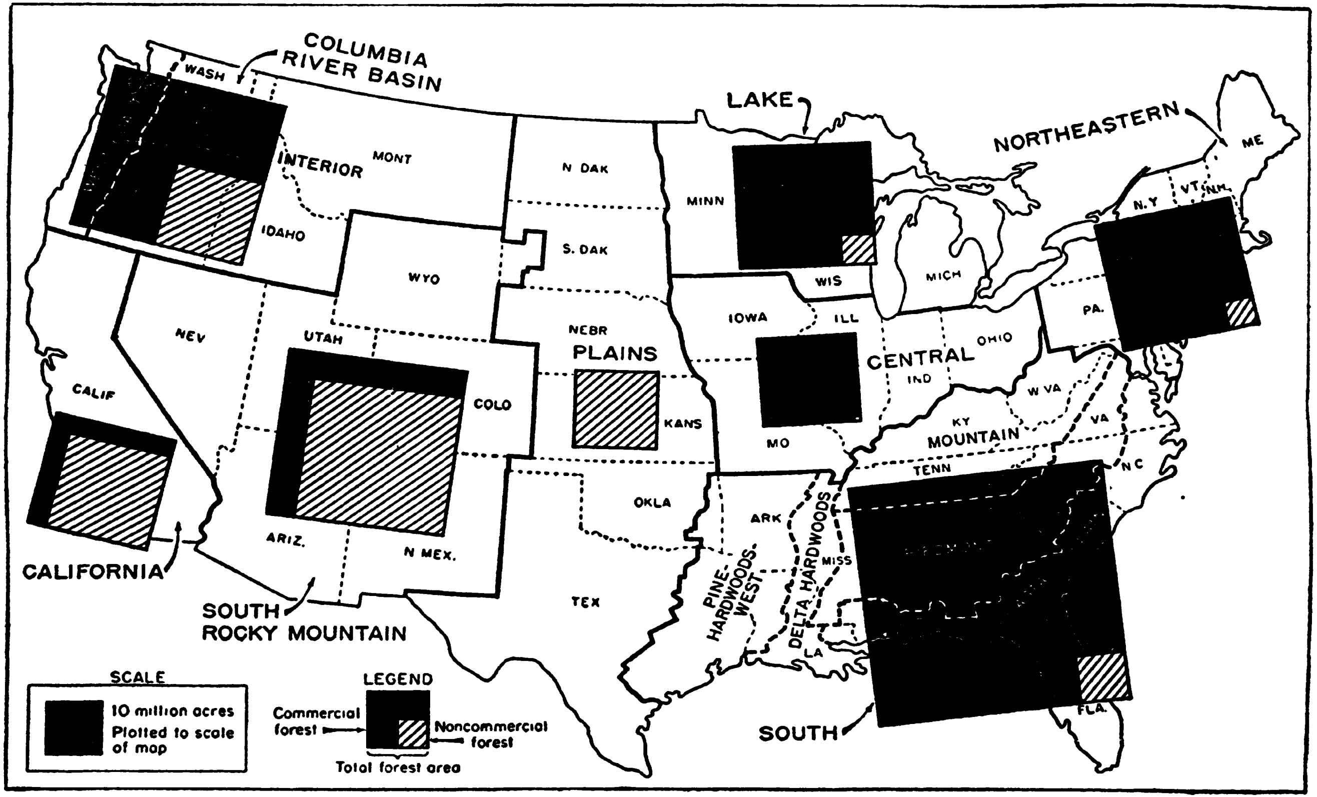
Conservation of the Forests

As early as 1891, a law of Congress gave the President the right to withdraw government forest lands from sale and to establish national forests. Under Presidents Harrison, Cleveland and McKinley, about 46,000,000 acres of forest reserves were set aside. When Theodore Roosevelt became President, he recognized the chief problem of conservation — that of adjusting the conflict between the interests of the present and those of the future. In his first annual message he stated:

> Wise forest production does not mean the withdrawal of forest resources, whether of wood, water or grass, from contributing their full share to the welfare of the people, but, on the contrary, gives the assurance of larger and more certain supplies. The fundamental idea of forestry is the perpetuation of forests by use. Forest protection is not an end in itself; it is a means to increase and sustain the resources of our country and the industries which depend upon them.

By the close of Roosevelt's presidency the larger part of the federal forest lands had been set aside to be used perpetually in the interests of the whole nation. During his administration, more than 148,000,000 acres of forest lands had been thus appropriated.

In 1901, the Division of Forestry, which had been established twenty years before in the Department of Agriculture, became the Bureau of Forestry. Gifford Pinchot, a man of wide experience who knew what other countries were doing to perserve their forests, was made Chief Forester. In 1905, the Bureau became the United States Forest Service and control of the national forests was transferred to it from a Division of the Land Office in the Department of Interior. Thus the foresters and forests, which had been under two different Departments, were brought together. Under the direction of Pinchot plans were made and carried out to prevent the destruction of the forests that remained, especially from fire; and a beginning was made to retimber denuded areas as projects for reforestation were begun.



From the Yearbook of Agriculture, 1940

RELATIVE FOREST AREAS

Through programs and publications much was accomplished in the scientific care and control of government forests. But it was not until after the Capper Report of 1920, the Report of President Hoover's Timber Conservation Board, and the Copeland Report of 1933, that national forestry was placed on a solid foundation.

President Taft continued the work of Roosevelt in regard to the various aspects of conservation. Since most of the nation's forest lands in government ownership had already been reserved, the amount withdrawn could not compare with the achievements of Roosevelt. But in 1910, Congress revised legislation relating to the public lands in the light of the experience of the preceding decade. Of significance were the laws pertaining to oil, coal, and phosphate lands. The following year, the Weeks Law was passed which enabled the government to purchase forest lands wherever necessary to improve the navigability of rivers. Under this law lands in the White Mountains and the southern Appalachians were purchased.

The work of President Taft in carrying out Roosevelt's conservation policies was obscured by an unfortunate controversy between Chief Forester Giffort Pinchot and Secretary of the Interior Ballinger. Pinchot publicly accused Ballinger of granting to powerful private interests certain public lands containing water power sites in Montana and Wyoming. These lands had been withdrawn from public sale by President Roosevelt. Pinchot also defended L. R. Glavis, an investigator for the Federal Land Office, who had lost his position because he accused Ballinger of favoring the powerful Cunningham syndicate in its claim to coal lands in Alaska. Pinchot was dismissed, but public opinion demanded an investigation. A joint congressional committee exonerated Ballinger. Failing to secure public confidence, his position became intolerable, and he resigned. Later, the courts ruled that the Cunningham claims were fraudulent. The affair served to widen the breach that was developing within the ranks of the Republican party. The dispute was an intensely bitter one and led many to think that Taft was not doing all he could about conservation and that he was a poor judge of men. The results of the controversy from one point of view were encouraging, showing that public opinion could be highly aroused over the question of policies regarding the public wealth.

Conservation of Mineral Lands

Before 1900, most of the lands containing known deposits of gold, silver, copper, lead, nickel, and other metals and minerals had passed to private control. The period after the Civil War had seen vast areas secured in various ways by private interests. The Mineral Lands Act of 1872 provided for the sale of mineral lands, except coal properties, after a certain amount of development, at prices ranging from $2.50 to $5.00 an acre; a series of laws permitted the sale of coal lands at prices varying from $10 to $15 an acre; the Timber and Stone Act of 1878 resulted in the sale, at a minimum of $2.50 an acre, of land valuable for timber and stone but unfit for cultivation; the railroads received rich deposits of minerals in the government lands freely granted to them; areas of lands containing valuable natural resources were alienated under the Homestead and Pre-emption Acts in spite of the fact that these laws were designed for pioneer farmers; and the rich ore lands of Minnesota, Michigan and Wisconsin were exempted from the Mineral Lands Act and sold at even lower prices than that law provided. Confusion of national policy, corruption, greed, and inefficiency had brought about the loss to private interests of the nation's most valuable birthright — its mineral and metals.

By 1900, the most important mineral lands remaining in the hands of the government were coal, phosphate, and oil lands. Legislation was adopted during President Roosevelt's administration which authorized the President to withdraw from sale the mineral lands of the national domain. In order to protect such mineral resources that remained Roosevelt reserved from sale and settlement a total of 75,000,000 acres of land that contained coal, oil, and other subsurface wealth. Laws were also passed providing for the separation of the surface of coal lands fit for agriculture from the mineral wealth beneath, thus permitting the separate disposal of each or their separate retention by the government.

A National Conservation Commission was appointed and made a survey of the natural resources of the country. Its report, published in 1909, foresaw the early exhaustion of the coal, oil and high grade iron ores of the country because of the increasing rate of production. However, due to the report more efficient processes in mining came into use and more government lands, containing coal and phosphate, were withdrawn from private entry.

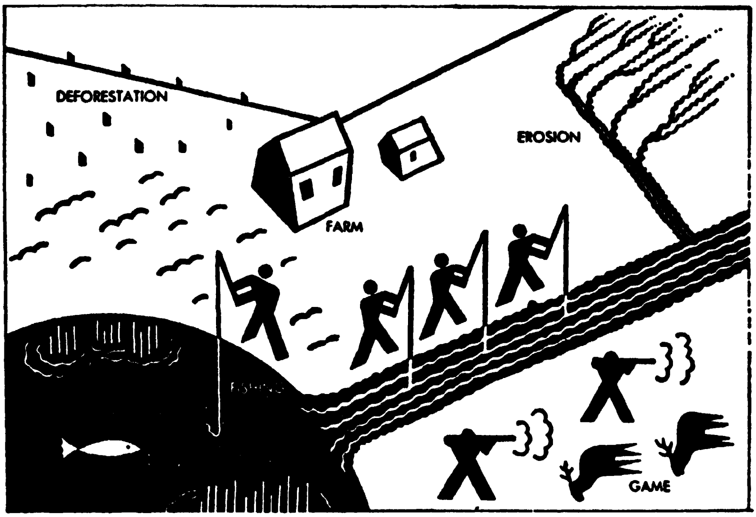
Irrigation

Irrigation had been adopted to a small extent from the earliest days of settlement and could be found among the early Spanish settlers, the Pennsylvania-Germans during the colonial period, some tribes of Indians, the Mormons in Utah, the early immigrants to California during the gold rush, and along the trails to the far West. It was not until after the Civil War that the federal government undertook to encourage the reclamation of barren lands. A demand for the amendment of the land laws relating to these lands appeared. Obviously the usual tract of 160 acres in semi-arid regions was not large enough for farming such areas and if these waste areas were to be utilized they would have to be developed under careful plans of irrigation. President Grant after visiting the far West in 1875 suggested to Congress the appointment of a commission to inspect the dry regions and to make recommendations. Two years later the Desert Land Act was passed. It provided for the sale of 640 acres at $1.25 an acre to any who would irrigate the land within three years. In 1890, 320 acres could be purchased. Although only one-eighth of the land had to be cultivated under the law, the requirement for irrigation was vague and it became evident that the average settler could not afford to build an adequate system of water works. Little progress was made until the cattle industry of the plains was disrupted after 1880. Then land and irrigation companies were formed and a boom resulted. By 1890, more than 3,600,000 acres had been granted to 54,000 irrigators. But the law operated in the interests of grazing groups and irrigation companies and not the settler.

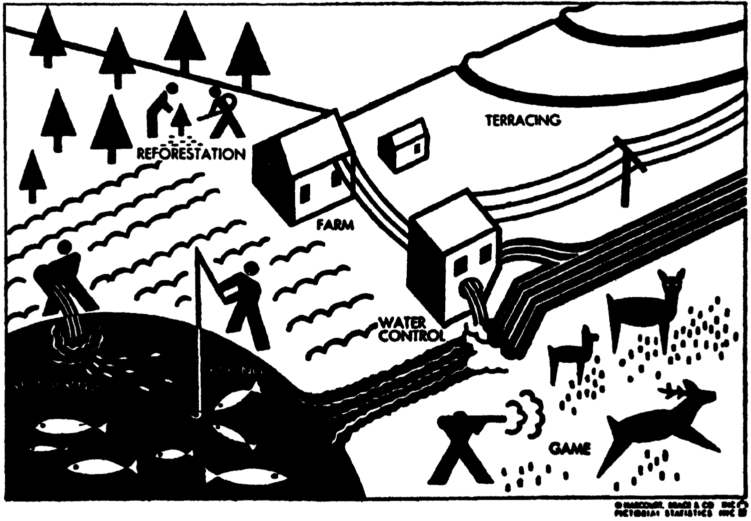
Westerners pointed out that title to land under the Desert Land Act was not given until after the land was irrigated and that settlers therefore could not give their land as security for the cost of reclamation. As a result of the demand for a change in the desert legislation, Congress passed the Carey Act in 1894. It provided for the transfer up to a million acres of federal lands to each state having semi-arid lands within its borders on the condition that the state would irrigate not less than twenty of each 160 acres cultivated by actual settlers within a period of ten years. Colorado, Idaho, Montana, Nevada, Wyoming and other western states immediately accepted the proposal. The states contracted with private companies to build irrigation works and in turn these companies sold or leased "water rights" to settlers. By 1914, more than 7,000,000 acres had been applied for under the Carey Act, but only 460,000 acres had actually been reclaimed. Of this, 62 per cent was in Wyoming.

As the conservation movement got under way at the beginning of the twentieth century, a demand was made for the construction of irrigation projects by the federal government. In 1902, the Newlands Reclamation Act provided for federal construction of irrigation works for the first time, outside of Indian reservations. The law required that the receipts from the sales of federal lands in Oklahoma, Kansas, Nebraska, North Dakota, South Dakota, and all states to the west and southwest (except Texas) be set aside as a "reclamation fund" to be used to survey, construct, and maintain irrigation works in the semiarid states. The users of water in each region were to repay the government for the cost of construction over a period of ten years without interest on the deferred payment. It was discovered, however, that settlers who took up lands could not pay for these projects within the stated period and Congress was forced in 1914 to extend it to twenty years. Later the government was required to lease water rights in many

WASTE OF RESOURCES



CONSERVATION



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different localities, rather than to sell the entire irrigation works because of the financial inability of the settlers to buy them.

Under the Newlands Act, much was accomplished in the reclamation of semi-arid lands. By 1914, more than $96,000,000 had been spent in building, operation, and maintenance of irrigation projects. Only $7,000,000 were received from settlers by the federal government in return. But such huge dams were built as the Shoshone dam in Wyoming, the Roosevelt dam in Arizona, and the Arrowrock dam in Idaho, as well as many smaller irrigation works. Millions of acres of lands were reclaimed and such crops as sugar beets, alfalfa, rice, cereals, and fruits were grown on them. Although the projects were largely financial failures to the government, they inaugurated the movement to open for settlement the great dry areas of the West and began policies which in more recent years have been elaborated, contributing to the improvement and well being of large groups of people. Although the impetus to the irrigation movement was given during the administration of Theodore Roosevelt, it was not until the decades of the twenties and thirties that a beginning was made in analyzing such projects in terms of cost and economic evaluation.

Conservation of Water Power Sites

Throughout most of the nineteenth century, the policy of the federal government had been to sell or grant outright to industrial and other companies lands which contained valuable water power sites. Thus private enterprise came to control the valuable sources of power. States likewise had given the water power rights to private interests. By the end of the nineteenth century, the most valuable watersheds and power sites were in private hands. In 1889, a systematic study of the water resources of the country was begun by the United States Geological Survey at the request of Congress. The acts of 1895 and 1902, passed in the interests of water supply rather than that of power, reserved certain watersheds from settlement. In 1906, a new policy was established when Congress leased to the Edison Electric Power Company in southern California certain water power sites for a period of forty years in return for an annual rental paid to the government. Other companies received similar contracts. The policy was not accomplished without a vigorous fight by the water power interests. The Attorney-General, however, sustained the right of the government to charge for water power.

In 1910, Congress enacted legislation authorizing the President to set aside public lands for water power or irrigation purposes and Taft made good use of this authority. Ten years later the Federal

Water Power Act provided that no lease or grant of federal water power should be made for more than fifty years. It also permitted the "recapture" of power plants by the federal government, state, or municipality, if deemed necessary, at the expiration of the lease, provided a fair payment be made for the plant. A Federal Power Commission, consisting of the Secretaries of War, Agriculture and Interior, was established to administer the law. It laid the basis for future developments in regard to the control and conservation of valuable water power sites. The public interest in power sites was protected; programs were worked out cooperatively with the power commissions of several states; and the way was paved for rate-making, which was later to become a vital issue. In 1930, the Commission was reorganized with five full-time commissioners.

The Inland Waterways Movement

In 1907, President Roosevelt appointed the Inland Waterways Commission to study the relations of the forests and streams to the other natural resources and to prepare "a comprehensive plan for the improvement and control of the river systems of the country." The interest in waterways, long dormant, grew out of the desire to conserve natural resources, to control floods that periodically devasted sections of the country, to relieve the congestion of the railroads, to provide a more adequate transportation system, and to establish competition with the railroads in order to reduce transportation rates. In 1908 the Inland Waterways Commission submitted a bulky *Preliminary Report* on rivers, lakes, canals, and railroad competition. It recommended that all future plans for improving navigation should consider power development, flood control, water purification and the reclamation of land. The Commission recommended a conference for a discussion of the conservation problem as a whole. This was called by President Roosevelt, and a group of state governors and others met at the White House in 1908. Partly as a result of the conference and partly on the recommendation of the Inland Waterways Commission, Congress established the National Waterways Commission in 1909. It was charged with the duty of investigating the water transportation system of the country. The Commission, consisting of twelve congressmen, reported to Congress in 1910. It suggested the continuance of investigations by army engineers and the completion of projects that had been started, but advocated a careful study of projects that were not vital and essential to navigation. Another report in 1912 recommended the Lake Erie-Ohio River Canal, suggested further study on the question of the Lake Erie-Lake Michigan Canal, opposed certain other suggested projects and urged that all water carriers be brought under the regulating jurisdiction of the Interstate Commerce Commission. As a result of the inland waterways movement, traffic on the rivers, canals and streams increased. In 1920 more than 125,000,000 tons of freight were transported on the inland waterways of the country, other than the Great Lakes.

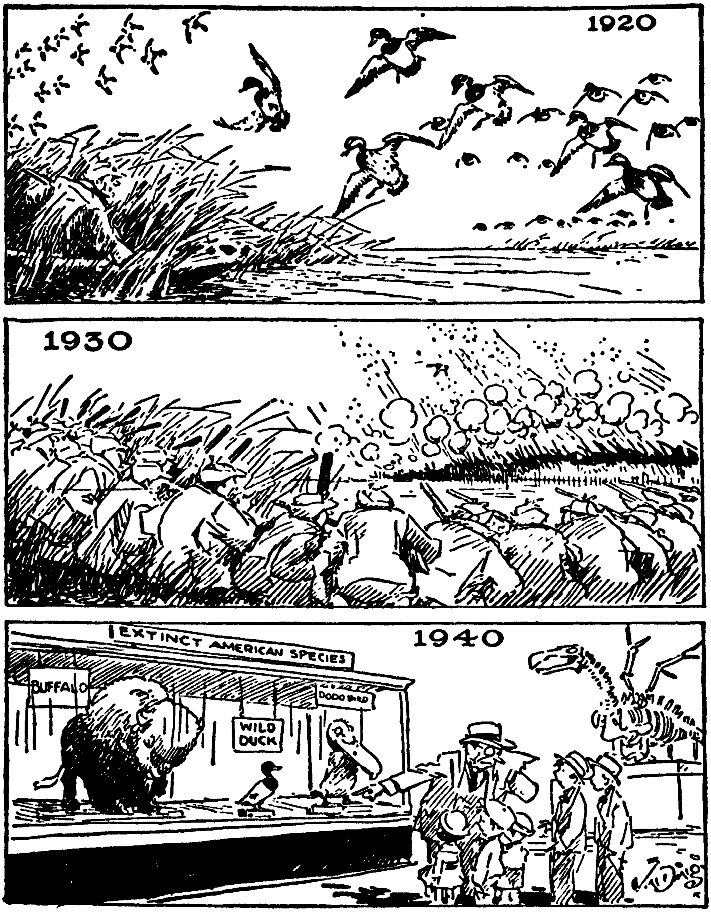
The Reclamation of Swamp Lands

The story of the use of swamps and overflowed lands goes back to the middle of the nineteenth century. Because of the abundance of drier and better lands, little attention had been paid to the poorer regions. Until 1850 all the great swamp tracts, except some in the thirteen original states, such as Dismal and Okefinokee swamps, Jersey marshes, and tidal lands in New England, remained in the possession of the federal government. In 1850 and 1860 about six-sevenths of these regions were turned over to the states, a total of about 64,000,000 acres. Florida and Louisiana alone received 20,000,000 and 9,000,000 acres respectively. Many frauds were perpetrated in selecting lands by the states and in disposing of them to individuals and capitalist groups. During this period few states made efforts to drain the swamp lands. Illinois and Iowa granted them to counties, which sold them for the benefit of schools, and to companies for bridge construction, or they offered them as military bounties during the Civil War. In Michigan, Minnesota, and Florida, railroad companies were given areas of swamp lands. The grants to capitalists and syndicates of large tracts of land in most of the sixteen states containing vast marshes and swamps furthered the trend toward the monopoly of land.

As the conservation movement grew in the early part of the twentieth century, private initiative, and to some extent state enterprise, did much to drain certain areas. Federal funds were increasingly appropriated for the purpose. The interstate character of many large drainage projects was urged as sufficient reason for increased national aid. In 1914 and 1915 Congress appropriated large sums of money for investigating the problems of wet lands in general and of flood control in particular.

In time it became evident that there were many sides to the question of the reclamation of swamp lands other than the recovery for agricultural tracts or for industrial or other uses. Thousands of square miles of drained bottoms proved useless for growing purposes. Slowly it was recognized that swamps, like forests, were often valuable for maintaining the flow of streams, which was often impeded by draining.

Another fact of deep concern to conservationists and sportsmen alike was the decline in migratory birds which followed the destruction of their breeding and resting places. In the thirties, chiefly as a part of the New Deal conservation program, plans were carefully worked out and put into operation to protect millions of wild ducks, geese, and other birds.



A drawing by Ding in the "New York Herald Tribune"

A Cartoonist's Warning that the Wild Duck Might Become a Museum Piece Unless Wasteful Hunting Each Autumn be Checked. Fortunately Plans that Have Been Put Into Effect Since 1933 Have Prevented This

The White House Conference

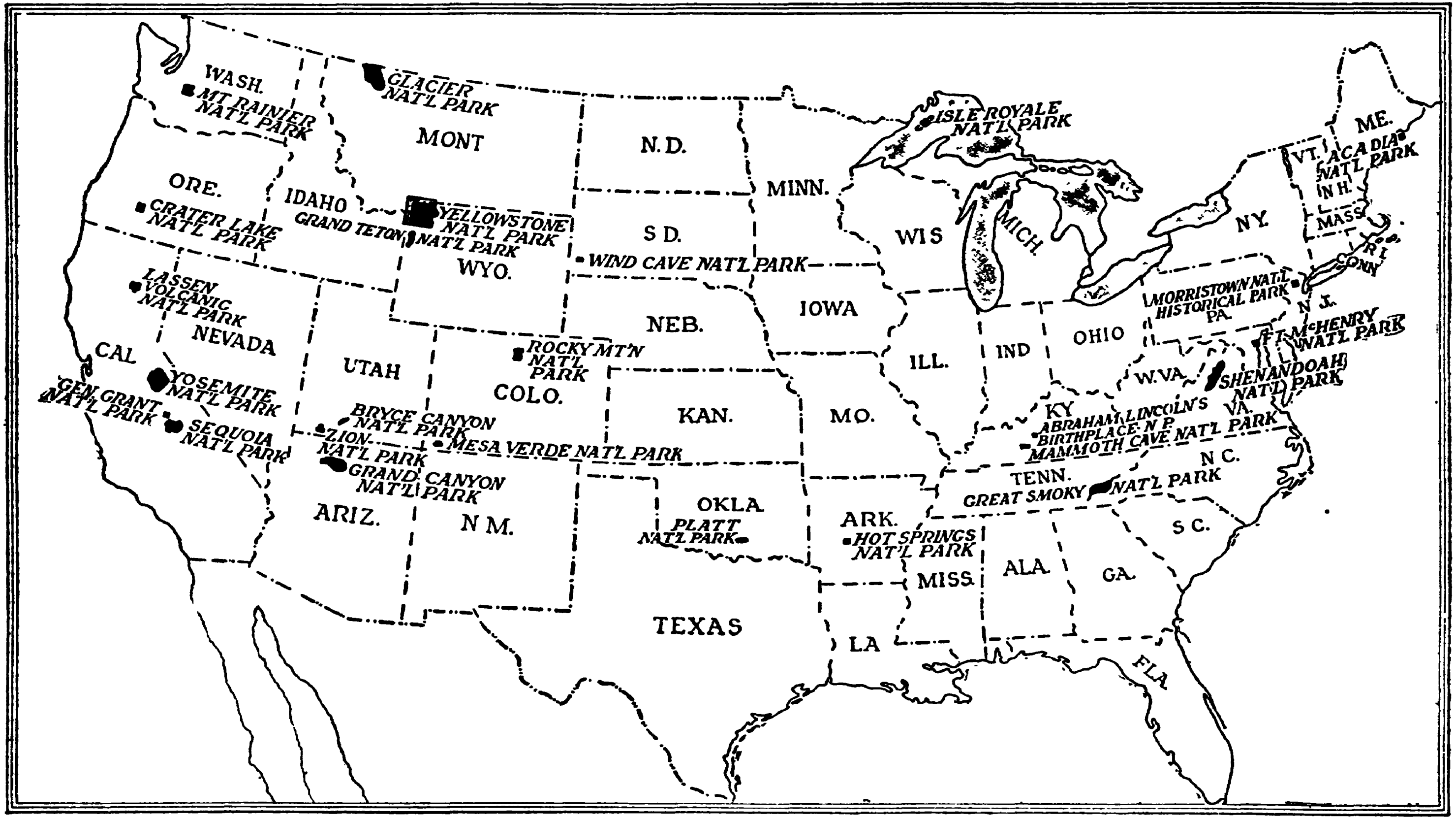
On the recommendation of the Inland Waterways Commission, President Roosevelt, in May, 1908, called a conference at the White

House to consider the conservation of natural resources. Governors of the states, cabinet members, justices of the Supreme Court, educators and scientists took part in the discussions. This national conference gave widespread publicity to the needs for conservation and for the first time brought together the governors of the states. Its recommendations set forth a general and complete scheme of reform. A plan was drawn up, which provided for cooperation between Congress and the states in developing a program. As a result, the states entered enthusiastically into plans for the conservation of state forests, for reforestation, and for the reservation of mineral lands. Little, however, was actually accomplished by the states at this time. Some state programs, begun years before, were now revitalized. Inspired by the work of the federal government forty-one states appointed commissions within eighteen months after the conference had adjourned. In order to develop even further interest and coordination in the work, President Roosevelt appointed the National Conservation Commission, headed by Gifford Pinchot. In 1909, it made its exhaustive inventory of the natural resources of the country and emphasized the great waste of minerals still taking place. In the same year, the North American Conservation Conference met in Washington for the purpose of extending the program as far as possible into international affairs.

The National Parks

The Washburn-Langford-Doane expedition into the upper Yellowstone country in 1870 publicized the natural beauties of that region. News of the wonderland, its travertine terraces, hot springs, spouting geysers, brilliantly colored canyons, plunging waterfalls, blue lake, game herds, and ghostly fossil forests, spread over the country. The suggestions of a group of Montana citizens who, around a wilderness campfire in 1870, conceived the idea of establishing the region as "a pleasuring ground for the benefit and enjoyment of the people," led to an act of Congress in 1872 to hold the area in government ownership as a national park.

In the decades that followed, a few other national parks were established for public use. But the movement was accelerated in the period when Theodore Roosevelt was preaching the doctrine of conservation. Several parks were set aside as a part of his program and the way was opened for others to follow. They were reserved because of the great scenic beauty that made them of interest to the general public, and also in order to reserve splendid forests and protect wild life in danger of extinction. From time to time, other national parks were opened in various parts of the country.

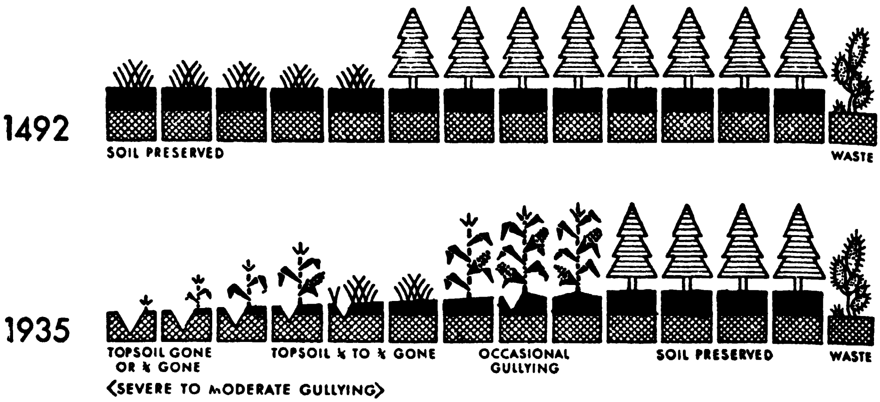


National Parks

The Department of Agriculture and Conservation

The Department of Agriculture was given new life under President Theodore Roosevelt. Many of its undertakings were in effect conservation enterprises. It helped the American farmer to understand more efficient and scientific methods of farming; it made discoveries and circulated information to combat animal and plant diseases as well as destructive insects; and it gathered statistics, distributed seeds, and studied soils, although only a little progress was made at this time in regard to soil conservation. The Department played an increasingly vital part in the conservation of natural resources.

EXTENT OF EROSION IN THE UNITED STATES



EACH BLOCK REPRESENTS 135 MILLION ACRES

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Courtesy of The U. S. Government Printing Office

Opposition to the Conservation Movement

The interest in conservation did not develop without opposition, particularly from the West. One writer stated that: "In the East, Pinchot conservation means resistance to private greed and corporate fraud that have sought to despoil and waste the public domain at the expense of the public," while "in the Far West, Pinchot conservation is held to mean obstruction of settlement and public progress that comes from opening of new lands."[1] Westerners argued that the settlement of new lands should not be restricted in any way because this policy would hold back national development; that government grazing lands had cost the nation little and therefore should be open to all; that the timber of the country had not been wasted but had been used for industrial purposes and the building of towns; and that conservation policies should be confined to the states as not being within the province of the federal government.

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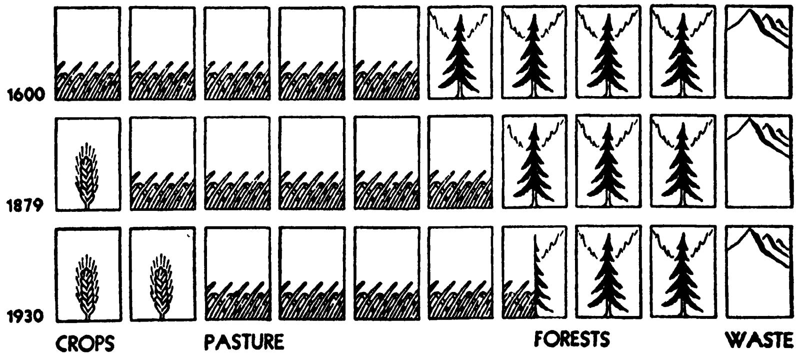
[1] Leslie M. Scott, "Why East and West Differ on the Conservation Problem," *Independent*, LXVIII (March 31, 1910), p. 697.

Much stress was placed on the belief that conservation was a sovereign right of the states. This was the constitutional argument. It was emphasized that the powers of the states were sufficient to handle all conservation problems; that federal control was unjust because it involved bureaucratic methods and taxed the few for the benefit of the many; and that the new states should have the same right to their resources as the older states had to theirs. But up to this time the states had done little or nothing to promote the policies of conservation.

Those in favor of federal control insisted that conservation was properly a function of the federal government because the resources belonged to the people of the country and therefore the federal government had the right to regulate and control them. They stated that the federal government could enforce a uniform policy and supervise it more economically than the states. Then again, conservation projects on rivers and streams as well as reclamation of lands were often interstate in scope. Regardless of the arguments pro and con progress was made in the conservation movement during the first decade and a half of the twentieth century, and the basis for its later development was established.

LAND UTILIZATION



EACH SYMBOL REPRESENTS 200 MILLION ACRES © RES DIV, NAT EDUC ASSO

Courtesy of the National Education Association erners such as John F. Slater and Julius Rosenwald. Negro industrial schools such as Hampton and Tuskegee, and institutions of higher education including Howard, Fisk and Atlanta Universities came into existence.

Economic Reconstruction

Before the war the South had been at a serious disadvantage compared to the North owing to the general backwardness of its industrial [illegible]. During the emergency of war everything possible was done to [illegible] on a war basis as blast furnaces, for[illegible]dries [illegible] arms, powder mills [illegible] and [illegible]. For more than a decade and [illegible] in recon- from the ravages of war and its aftermath. [illegible] and spirit of that section as well as for its recovery [illegible] struction was carried out at the point of the bayonet as [illegible] troops took charge of the region under the acts of reconstruction. [illegible] was also unfortunate that a large part of the former ruling classes had little voice in solving the problems that followed the war as many of them were disfranchised and in disrepute. Hordes of demagogues and unscrupulous politicians descended on the South, largely as office holders or financial adventurers. These "carpetbaggers" took part in shaping the new state constitutions, in bringing the Negroes and [illegible] white unionists together into the ranks of the Republican party, in controlling the machinery of the state governments. [illegible] reckless expenditures they helped to increase the state debts and were partly responsible for preventing a more rapid economic recovery. It should be noted, however, that in addition to the carpetbaggers, many northern missionaries, and teachers, who had a sincere interest in the newly-emancipated Negroes and in the problems of reconstruction, also went to the South during this period. Their numbers and influence, however, were not great enough to combat the evils of reconstruction, backed by the authority of the federal government. Some federal soldiers saw opportunities for a better living in the South and returned after the war to become substantial citizens.

Economic problems were manifold. In addition to the devastation in the war areas, almost one-fourth of the white male population was killed or incapacitated; capital resources were dissipated; banks and commercial houses were bankrupt; the credit system was disorganized; economic ties with foreign countries were broken; the production of the staple crops was greatly retarded; livestock was reduced by almost two-thirds; and land values had greatly depreciated. In addition, emancipation wiped out about $2,000,000,000 worth of slave chant's point of view tended to make the farmer independent of him for provisions. The lack of capital, the dependence upon merchants, the restriction of the types of crops, and unscientific methods of cultivation were real problems that had to be faced. Consequently economic progress was slow, especially in the diversification of crops, during the entire period of reconstruction. But some changes in this direction took place even during this period.

The problem of developing a new labor system had to be solved during reconstruction years. The abolition of slavery put an end to an agricultural system which had been in existence in the South since [illegible] century, although even before *the war this system* [illegible] in certain sections as many *ante-bellum* [illegible] by the year. *After the war they engaged Negroes* [illegible] and signed agreements, the terms of which bound *the* [illegible] *to the white in much the same way as the hired slave. But* [illegible] immediate effects of abolition were disastrous. It meant the loss [illegible] slaves to their owners, as well as the loss of taxable property [illegible] communities, and it also caused the general breaking up of the [illegible] system. While a number of [illegible] masters and continued [illegible] countryside in [illegible] tations for taxes [illegible] Freedmen's Bureau, plantations [illegible] *passed* [illegible] to small [illegible] plantation [illegible] estates found that [illegible] made it impossible to [illegible] of parts of many plantations [illegible] *distribution of land.* The average [illegible] 430 acres; in 1880, only 187 acres [illegible] 55,128 plantations and farms; twenty [illegible] increased to 135,864.

The breakdown of the plantation system resulted in [illegible] pattern in the South. The former rigid strata of southern [illegible] from the great plantation owners to the lowliest slaves—[illegible] The fall of the old aristocracy was complete. Power passed [illegible] hands of a new composite group drawn from all the earlier groups [illegible] represented largely by those who had little power of any sort [illegible] the war. Many outside interests helped the Negro. Most conspicuous [illegible] *were the George Peabody Educational* Foundation, established [illegible] Boston philanthropist, and similar foundations created by other [illegible] erners such as John F. Slater and Julius Rosenwald. Negro industrial schools such as Hampton and Tuskegee, and institutions of higher education including Howard, Fisk and Atlanta Universities came into existence.

Economic Reconstruction

Before the war the South had been at a serious disadvantage compared to the North owing to the general backwardness of its industrial life. During the emergency of war everything possible was done to place that region on a war basis as blast furnaces, forges and foundries produced cannon and other arms, powder mills were established and textile factories and tanneries increased. The first steps in reconstruction were taken when war industries had to make the transition to peace-time activities. Many plants made the change without difficulty as there were broad markets for all types of merchandise but little money. Some that had been destroyed during the war were rebuilt. Northern investors helped southern industry to a certain extent from the beginning of reconstruction. Even in the darkest days after the war some industrial progress was made.

As the war came to an end in the spring of 1865, an attempt was made by many to plant as much cotton and tobacco as possible. But because of the lateness of planting, the difficulty of securing cash or credit, the scarcity of seed, the lack of horses and mules, the handicap of worn-out farming implements, and problems of labor resulting from emancipation, the crop of 1865 was relatively small. In the years that followed, plantation owners, small farmers, tenants and share croppers gradually increased the staple crops. But the cotton crop of 1860 (2,275,372,000 pounds) was not surpassed until 1879 (2,404,410,000 pounds). During these years, the southern states passed lien laws to enable land owners and tenants to secure loans on land, crops, live stock and other property in order to obtain supplies from commission merchants.

The new system of financing, however, worked to the disadvantage of whites and black alike. Farmers went into debt for tools, machinery, seed, and even food, giving the merchant who supplied their needs a lien or mortgage — even on the next year's crop. The result was that it became impossible for a farmer to trade with anyone else because no other merchant would grant credit to one whose property or future crop was already mortgaged. The merchant was therefore in a position to dictate prices and also to name the crops that the farmer should raise. Naturally these were chiefly cotton and tobacco, which promised a quick money return, while the raising of grain from the merchant's point of view tended to make the farmer independent of him for provisions. The lack of capital, the dependence upon merchants, the restriction of the types of crops, and unscientific methods of cultivation were real problems that had to be faced. Consequently economic progress was slow, especially in the diversification of crops, during the entire period of reconstruction. But some changes in this direction took place even during this period.

The problem of developing a new labor system had to be solved during reconstruction years. The abolition of slavery put an end to an agricultural system which had been in existence in the South since the seventeenth century, although even before the war this system was beginning to change in certain sections as many ante-bellum planters hired slaves by the year. After the war they engaged Negroes under written and signed agreements, the terms of which bound the freedman to the white in much the same way as the hired slave. But the immediate effects of abolition were disastrous. It meant the loss of the slaves to their owners, as well as the loss of taxable property to the communities, and it also caused the general breaking up of the labor organization of the plantation system. While a number of Negroes remained faithful to their old masters and continued to labor for them, usually for low wages, many roamed the countryside in idleness, refusing to work in any way. In the months after the war, the roads were full of Negroes on their way to offices of the Freedmen's Bureau or to the nearest fort or garrison now in the hands of federal troops. Rumors were rife that food and clothes could be obtained free and that each Negro was to receive forty acres of land and a mule from confiscated plantations. This latter hope, prevalent especially before Christmas, 1865, probably arose from the distribution among freedmen of lands on the southeast coast by General Sherman's order in January, 1865. Thousands of idle men and women were concentrated in camps or wandered here and there in idleness, in many cases stealing and pilfering in order to live. Lawlessness, immorality, and sickness resulted, while at the same time much of the land was uncultivated for lack of laborers. The Freedman's Bureau cared for many Negroes and sent numbers back to work for wages. The problem, however, was too large for the Bureau to handle and as a result southern state legislatures and municipalities took action. Many laws and ordinances were passed to control and regulate the lives and the activities of the Negroes. These became known as black codes.

The black codes varied in the different southern states. They dealt with such matters as vagrancy, apprenticeship, property rights.

penalties for crime, and marital relations. Some southern legislatures provided that idle Negroes could be arrested. Vagrancy was variously defined but the definitions were more or less obviously applicable to Negroes moving about without sanction or employment and penalties included fines or imprisonment, labor on public works, or labor for private employers, who might be required to pay the fine. Some states provided that a Negro would have to produce a license if he wished to engage in trade or preach; in others, he was required to carry a license, showing where he lived and for whom he worked. The laws varied greatly among the states, but were most repressive in South Carolina and Mississippi where the colored population outnumbered the white. Such regulations seemed necessary to the South, but in the North, they aroused indignation, some asserting that they were an attempt to restore slavery in another guise. Far from this, however, the laws were partly an attempt on the part of the southern states to restore order to the disorganized labor system.

As Congress put into operation its radical reconstruction plan of 1867, the black codes fell. During the years that followed, through a division of land, working for wages, and share-cropping, a new labor system emerged. In the Black Belt — the crescent shaped area of black alluvial soil extending from the Alabama River in Alabama and up the Tombigbee in northern Mississippi — cotton was practically the only crop and this area became the leading cotton-producing region of the South until 1880, when it began to turn some attention to food crops. The expense of the maintenance of labor was less than under slavery, but the yield under free labor was relatively low. In other regions during the latter part of the period of reconstruction, diversified farming and the raising of food crops on small tracts of land leased, shared or independently owned showed that changes were beginning to occur in the South.

During reconstruction years, as the South was slowly recovering, the entire country was severely shaken by the panic of 1873. The North was most seriously affected, but it also had grave effects on the South as that section struggled with its economic problems. Cotton dropped from twenty cents a pound in 1872 to seven cents a pound in 1873. This price brought ruin to many planters and farmers as well as to creditors. Other crops were affected in a similar manner. At the same time state governments, now out of the hands of carpetbaggers, investigated their bonded indebtedness, which in many cases was repudiated or scaled down. For several years the South again suffered from hard times. Slowly progress was made and there emerged out of the political and economic wreckage of the past a new and better South. Based on a realization of its natural resources and with a will to throw off the shackles of the earlier period, a new economic era began.

Diversified Agriculture

From the close of the period of reconstruction more interest was displayed in diversified agriculture. The changes that took place aided to relieve the South from its almost complete dependence on cotton and other staple crops. Prior to the Civil War, Savannah, Charleston and Norfolk steamship lines carried early vegetables and fruits to northern ports but the quantities were quite small. Fruit, vegetables, and nut growing for commercial purposes received little attention. Problems of transportation, lack of large city markets, emphasis on staple crops, and difficulties of labor supply prevented development in these fields. After the war, consignment by boat increased, but not until shipments were made by rail in the 1880's did they grow rapidly in volume. Demands from rapidly expanding northern cities, extending

THE RECONSTRUCTION DOSE.

A cartoon from "Frank Leslie's Illustrated Newspaper," July 13, 1867.

JOHNSON OBJECTS TO THE PHYSIC GIVEN TO THE SOUTH

The differences of the President and Congress over the Reconstruction Act to vegetables out of season; the development of the transportation system together with reduction of rates; the introduction of fast freight and express service; and the use of ventilator and refrigerator cars together with the changed economic conditions of the South, were responsible for this expansion of southern agriculture.

All parts of the old South contributed to the new trade in "trucking" crops and sent their products first to such cities as Baltimore, Philadelphia, New York, and Boston. The movement expanded into the Southwest and markets were found all over the country. Florida contributed also by sending early vegetables and fruits, including oranges, to northern markets. In 1900, the states of Virginia, North Carolina, South Carolina, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas and Louisiana produced for sale potatoes and other vegetables, fruits, and peanuts to the amount almost of $100,000,000. Thus a new type of industry, which was almost non-existent before the war, was prospering.

Broadening markets, an increase in the demand for greenstuffs all the year round in the American diet, and motor trucks and good roads all aided to increase commercial fruit and vegetable growing to large proportions in the twentieth century.

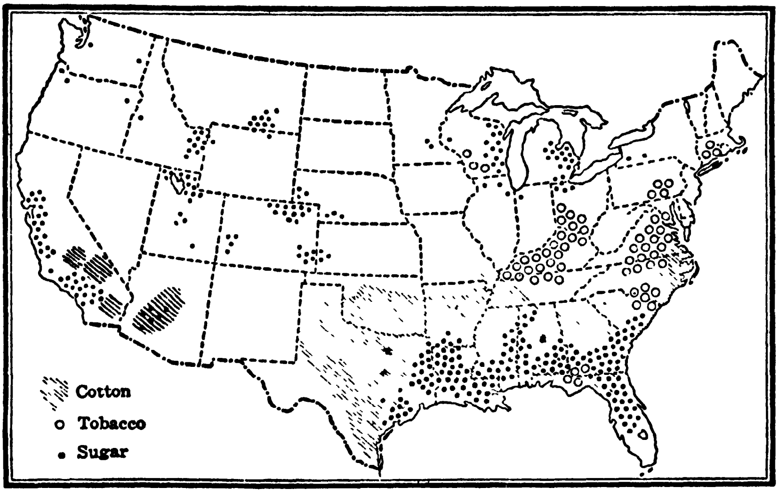
The Staple Crops

After reconstruction the production of cotton increased rapidly. The crop of 1880 was 6,605,750 bales; by 1890 the crop had increased to 8,652,590 bales; and in 1900 to 10,425,000. By 1914, it had reached 16,134,000 bales, which was four times as large as the bumper crop of 1860. But most of the cotton during the period after reconstruction was cultivated by tenant farmers and not by those who owned the land. Even the landowners were heavily in debt, for farms in the leading cotton growing states in 1900 were mortgaged to at least half their value.

During the decade of the 1880's the condition of cotton culture was relatively prosperous as there was a broadening demand for the commodity in Europe and in the United States, especially in the South itself where cotton mills were increasing. But in the last decade of the nineteenth century a severe depression hung over cotton production and the lot of cotton growers was similar to that of agrarians in the West and in other parts of the country. As a result, attempts were made to combine southern and western farm organizations, particularly the alliances, but without success. The price of upland cotton fell during the years 1889 to 1894 from 11.5 cents to 7.5 a pound. As the panic of 1893 continued, its price fell to 6 cents and in 1898 to

4.9 cents. Such a price was ruinous and in many cases did not pay or cover the cost of production. The fall in prices during the last decade of the nineteenth century can be attributed to the world-wide business depression of that period. Foreclosure resulted; much of the land fell into the hands of merchants, manufacturers and corporations; and farm tenancy increased.

Between 1899 and 1914, the trend of prices of all agricultural products was generally upward. The average annual price at New York during the period varied from nine cents to fourteen cents a pound. The total acreage in cotton increased 35 per cent. The gain was notable in the new regions of Texas and Oklahoma. At the outbreak of the war in Europe in 1914 the price fell from 12.5 to seven cents a pound, but during the war prices recovered and cotton producers shared a measure of prosperity never known before as prices climbed to reach thirty-eight cents a pound in 1919. Post-war deflation hurt the cotton growers, but alarming distress and deep suffering did not come until the country was caught in the grip of the world-wide depression.



Production Areas of Cotton, Tobacco, and Sugar

It took some time after the Civil War for the production of southern tobacco to recover. In 1880, the total crop in the United States was 472,661,000 pounds; in 1910, it exceeded 1,140,000,000 pounds. By this time it had become largely a product of the small farm, grown in connection with diversified farming, the acreage being limited by the amount the farmer could properly store and cure during the brief period that curing must be done to insure a high quality of tobacco

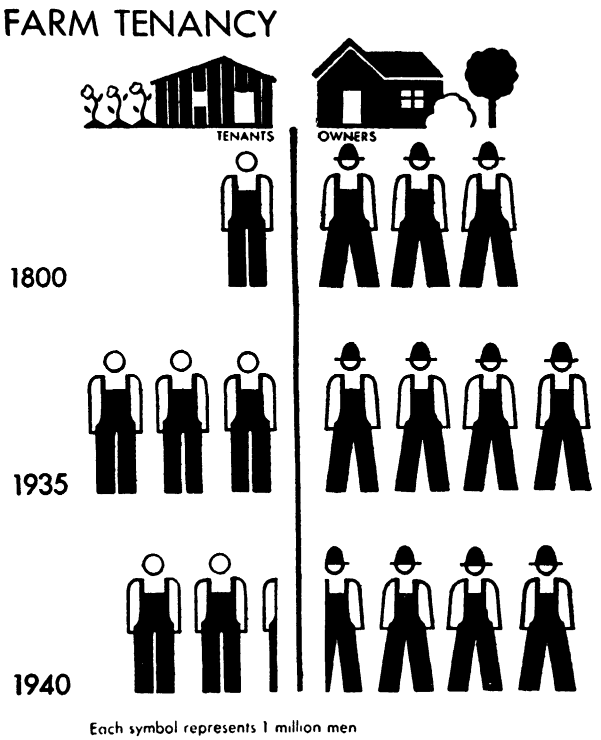
After the Civil War, Virginia no longer was the leading tobacco state. Production shifted to the newer regions of Kentucky, Tennessee, and North Carolina. Kentucky assumed leadership until 1927 when North Carolina became the chief tobacco-growing state, cultivating largely the bright or flue-cured tobacco used in making cigarettes. The production of tobacco also increased in states outside the South. The cultivation of cigar leaf became localized in the Connecticut Valley, Pennsylvania, Ohio and Wisconsin, especially after 1875 when Havana seedleaf was adopted. About 1900, a shade-grown cigar wrapper was introduced in Florida and the Connecticut Valley. As in earlier days, tobacco continued to be auctioned in different centers in the South. Ordinarily the United States exported two-fifths of its tobacco crop in raw form.

The growing of cane sugar for commercial purposes was confined to Louisiana. After reconstruction, the quantity of sugar produced annually fluctuated widely, reaching a maximum of 355,000 short tons in 1908. The story of sugar cultivation in the United States is closely interwoven with the periodic changes in tariff protection on the commodity. The First World War brought prosperity to sugar growers and stimulated production. The culture of beet sugar was attempted in different parts of the country quite early, but not until 1880 was it placed on a commercial basis when California expanded its production. It took hold in the western states rather than in the South, Colorado coming to lead the nation's output. By 1910 more beet than cane sugar was produced in the United States. In 1920, the output exceeded 1,000,000 tons.

After 1880, the southern crops of corn, wheat, oats, barley, hay and forage, increased. Between 1865 and 1914, the greatest expansion took place in the newer states west of the Mississippi. Wheat raising decreased almost to a vanishing point in Georgia, Florida, Alabama, Mississippi and also in Louisiana. The raising of livestock and dairying made slow progress. Not until after 1914 did the latter become a strong commercial factor in the southern states.

As the South progressed in agriculture the advances made in scientific farming greatly aided the movement. Not long after the Civil War, the United States Department of Agriculture and state colleges of agriculture began to experiment on worn out lands in the Old South and also in many barren regions. Great tracts were made fertile by putting into the soil certain elements of which it was deficient. Long before the Civil War, plans had been carried out to improve farming but now progress was rapid and more expansive. The knowledge of a proper rotation of crops was spread to many regions and increasing numbers of southern farmers learned to use cotton seed for fertilizer, feed, and for cottonseed oil.

Share cropping became one of the serious problems of the South. Tenant farmers, whether white or black, owning neither tools nor working stock, who received a share of the cotton, tobacco or other crops, continued to increase. The low income obtained by such families, and their reduction to serfdom by the credit system which continually obligated them to the land owners held back progress in many parts of the South.



From "Farmers Without Land," Public Affairs Committee, Inc., N. Y. PICTORIAL STATISTICS INC.

Development of Industries

From the close of Reconstruction, progress was made in manufacturing in the South. The southern states advanced in the production of coarse cotton fabrics. The tendency for cotton manufacture to migrate to the source of the raw materials and at the same time seek the advantage of low taxes, cheap labor, and abundant power became more and more evident. In 1880, the South had about 500,000 active cotton spindles whereas New England had almost 9,000,000. In 1915, the South possessed 13,265,000 spindles, New England, 17,526,000, and the rest of the country 2,050,000. By 1920 the South had almost one-half the spindles in the country. Massachusetts, South Carolina and North Carolina were the leading textile states. Ten years later Massachusetts still led and was followed by North Carolina, South Carolina and Georgia.

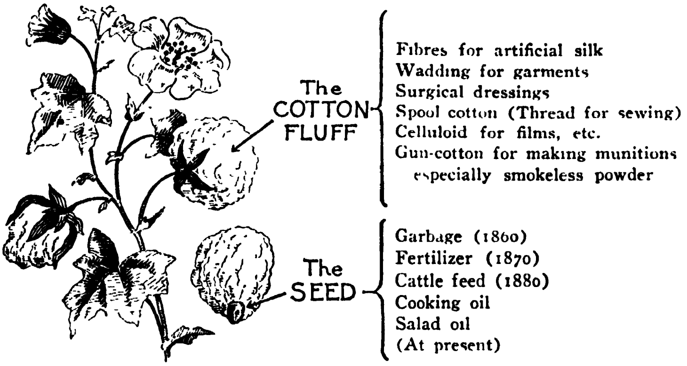
Cities such as Albemarle, Durham, and Winston-Salem in North Carolina were typical of the rising textile towns in the South. The economic and social development of these regions was similar in many ways to the changes that took place in New England and the middle states as the factory system arose during the first part of the nineteenth century. Low wages, long hours, and child labor characterized the southern factory system for many years.

Tobacco manufacture increased with the growth of the tobacco crops. Leaf was shipped from the warehouses in the various regions of the South to such manufacturing centers as Durham, Winston-Salem, St. Louis, and Louisville. Much was also sent to New York, Philadelphia, and other manufacturing cities of the North. The annual product of all the factories of the country in 1860 was valued at close to $31,000,000; in 1919, at over $1,000,000,000. The increasing consumption of cigarettes was an important reason for the expansion, for by 1914, more than 10,000,000,000 cigarettes were manufactured annually. Chiefly around the production of machine-made cigarettes, James B. Duke organized the American Tobacco Company in 1890. By 1911, the "Tobacco Trust," as it was known, largely controlled all branches of the tobacco manufacturing industry except the production of cigars. In that year, the Supreme Court found the company guilty of attempting to restrain commerce and monopolize the tobacco industry in violation of the Sherman Anti-Trust Act, and ordered it dissolved into competing units.

Among the growing manufacturing industries of the South, the production of furniture was important. North Carolina became second in furniture manufacturing only to Grand Rapids, Michigan. The production of coarse paper made headway in the pine regions. An increase occurred in the manufacture of boots and shoes. Milling and packing industries expanded. Cotton seed became the basis for many manufactures. Prior to the Civil War relatively small amounts of cottonseed oil were made in New Orleans, Natchez, Mobile and Petersburg, but the great bulk of cotton seed was discarded. After the war its commercial value as a fertilizer was recognized. The seven cottonseed oil mills of 1860 increased to 119 in 1890, crushing annually 1,000,000 tons of seeds, with products valued at $19,700,000.

From that time on, industrial chemistry found many new uses for the seed in producing fertilizers, cattle feed, cooking oil and salad oil.

One of the most important factors in southern industrial development was the establishment of a new iron and steel industry. In 1850, the entire South produced about 12 per cent of the total iron output of the country. The war almost destroyed the industry and recovery was slow. As late as 1890, the output of southern iron amounted only to 6 per cent of the nation's total, but by 1896 it had reached a maximum of 19 per cent. However, production by this time had increased enormously in the North and the progress of southern industry proportionately must be gauged in the light of northern advancement.



From a drawing by E. G. Lutz

THE DIVERSIFIED USES OF THE COTTON PLANT

In 1871, when Alabama was declared politically reconstructed, a group of railway and business leaders decided to establish a city devoted to iron manufacture in a region where iron ore, coal and limestone were known to be in abundance and in close proximity. At the junction of several railroads, Birmingham arose with amazing rapidity, growing from a village of 3,000 to a city of 178,000 in 1920. It became the center of iron, coal and coke production of that area. At first, pig iron became the most important iron product and by 1900, the Birmingham district exported more pig iron than all other regions. Experiments with the Bessemer steel process were not very successful at first, but as the open-hearth process was introduced in the closing years of the nineteenth century by the Tennessee Coal, Iron and Railroad Company and by other companies, much progress was made in producing steel. The Tennessee Coal, Iron and Railroad Company, though originally incorporated in Tennessee in the 1850's, was operating almost entirely in Alabama by 1890.

Between 1880 and 1890 about fifty blast furnaces were erected in Alabama, Virginia and Tennessee. Until the panic of 1893, a speculative fever ran through many regions of the South as land sales boomed, towns were laid out, railroads extended, and plans made for developing the coal and iron industries. From the end of the nineteenth century, as the country recovered from the effects of the panic, much progress was made in the iron and steel industry of the South. During the panic of 1907, the United States Steel Corporation took over the Tennessee Coal and Iron Corporation in Alabama and began its activities in that region. All forms of rolled iron and steel were manufactured in the South. Meanwhile, the foundry industry, long established in the southern states, expanded. The manufacture of stoves, car wheels, locomotives, general railway supplies, and cast iron pipes, flourished in such cities as Richmond, Birmingham, Atlanta, Roanoke, Chattanooga, and Anniston.

Much progress was also made in the production of petroleum and natural gas. In 1876, oil wells were opened in West Virginia. Kentucky, Tennessee, and Missouri followed. In Texas, the commercial production of petroleum began in 1896; Oklahoma followed in 1901 and Louisiana became an active producer in 1902. Arkansas did not begin its career in oil until 1921. Among other southern industries that should be noted was sulphur, which became an important export. By 1906, the South had a monopoly of the world's sulphur production. Louisiana was the first center, but Texas became the chief source of supply of the mineral.

The southern lumber industry reached great proportions. By the end of the nineteenth century, lumbering had become a large-scale industrial enterprise. Northern capital increasingly was invested in southern forest lands and sawmills. The South came to rival the northwest in the output of lumber and timber. Lumbering became the leading industry of Mississippi and among the chief industries of Alabama, Georgia, Louisiana, North Carolina and Texas. In 1900, the South produced 41 per cent of the nation's lumber, and in 1910, 53 per cent, although this high percentage has not been maintained in more recent times. Another of America's oldest industries — the production of naval stores, also flourished in the South. The United States produced in this period about 65 per cent of the world's supply of naval stores and almost all of this was obtained from the pine forests of the coastal plains region from North Carolina to Texas.

Many factors have contributed to the rise of a new South. The destruction of the plantation system, with the division of land and the development of a new labor system that followed, has been one. Its natural resources including minerals, water power sites, and new fertile lands have been another. The extension of the transportation system, the development of public utilities companies also contributed to the economic development of the South. Northern capital, too, aided in laying the foundations for a diversified form of economic life, which slowly came to displace the earlier agrarian civilization.

The New South

The term, the New South, has been generally applied to denote the economic and social changes and developments which have taken place in that part of the country since reconstruction. After a dark period of suffering and corruption, the South slowly developed economic and cultural patterns based on rising industries. With the increase of manufactures, the growth of urban population, the expansion of railroads, and the building of improved roads, the characteristics of the older agrarian South receded and in many regions its appearance became more like that of the industrial North.

In the period after the war southern leaders of a new generation arose to encourage and guide the expanding industrial life of the South. Such men as J. D. B. DeBow and William Gregg, who had championed manufacturers and urged agricultural diversification in the Old South, had a legion of followers in the New. Men like Henry W. Grady, editor of the *Atlanta Constitution;* Richmond H. Edmonds, founder of the *Manufacturer's Record,* and D. A. Tompkins, owner of the *Charlotte Observer,* were leaders of a group that preached the gospel of business and industrial enterprise and engaged actively in stimulating the movement. Although many planters of the older generation looked back to a "golden past" and held tenaciously to the beliefs of ante-bellum days, a new spirit and energy was arising which found expression in the industrial transformation of certain areas.

From the close of the Civil War, southern editors, promoters, real estate men, merchants, state commissioners of immigration, and others appealed through newspapers, periodicals, and pamphlets for capital and settlers to aid in establishing a new economy in the South. As early as 1865, men like W. S. McElwain obtained capital from the North to rebuild furnaces and factories that had been destroyed during the war. Truman H. Aldrich of New York, who went to Alabama in 1872, was representative of northerners who took capital to the South and engaged in many economic enterprises there. As industries expanded rapidly after reconstruction, especially in the Birmingham-Chattanooga area, northern bankers financed southern industrial projects. Less northern capital was available at first for establishing cotton mills, which had to be financed chiefly through funds until the twentieth century when southern advantages attracted northern mills to that region. The scaling down and repudiation of state debts in the decade of the seventies following the weird financing of the carpet-bag governments met with a storm of denunciation in the North and left many northerners hesitant regarding southern securities of all kinds. But as businessmen, investors, and financiers realized the economic possibilities of the South they continued to invest in southern public and industrial securities in increasing amounts.

The growing economic ties between the North and South after the period of Reconstruction, can be seen in the several expositions that were held. Northern manufacturers sent machinery and fabrics to the International Cotton Exposition, held in Atlanta in 1881, while General Sherman contributed $2,000 to it in order to begin a general subscription fund in the North. Congress appropriated $1,000,000 for the Cotton Centennial Exposition, held in New Orleans in 1885, and spent an additional $300,000 for a national exhibit. In these and other expositions, growing cooperation was manifested between the two sections. This was true also in the Louisiana Purchase Exposition, held in St. Louis in 1904. The exposition covered 1,240 acres and was the result of the preparation of several years. It cost more than $31,500,000 and was attended by almost 20,000,000 people. Foreign governments participated and erected buildings. The exposition also called attention to a new type of transportation. Many automobiles were on display, one of which had made the trip all the way from New York under its own power, which was advertised as a marvel of a new age.

As a result of the growing economic activities and relations between the two sections, the deep wounds of war slowly began to heal.

CHAPTER XXII

The Transportation System

The Consolidation and Expansion of the Railroads

One of the most striking aspects of American economic development between 1865 and 1914 was the progress made in railroad transportation. It took the South more than two decades after the destruction of war to establish an efficient system, but much progress then followed. In the West, beyond the Mississippi, the transcontinental railroads formed the outlines for a system which was forged while settlement was still taking place. In 1860, the United States had 30,000 miles of railroads, which were most highly developed in the Northeast. In 1914, the network was about 250,000 miles, covering every section of the country with great routes joining the Atlantic and Pacific. The total mileage exceeded that of all Europe and represented almost a third of the world's total.

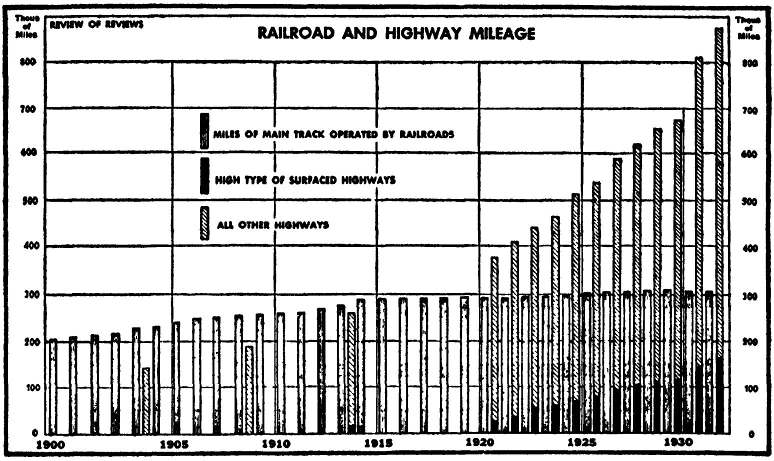
During this period when the railroad system was being completed, many improvements were made and greater efficiency was attained. A standard railway gauge was adopted which replaced the multiplicity of gauges of the earlier period. Steel rails, first Bessemer, then open-hearth, superseded iron rails, providing tracks of greater uniformity, strength and hardness. Steel bridges and equipment also aided in railroad development. Tank cars, cattle cars, and other types of cars were developed for freight and express traffic. Out of the crude signaling system emerged the highly efficient automatic electric block system. The Westinghouse air brake and automatic car couplers were important advances and the Federal Safety Appliance Act of 1893 required standard safety equipment. Better passenger cars and more comforts were provided for the traveling public as many improvements such as better lighting — from oil to electric, and heating — from stoves to steam, gradually made travel more comfortable and safer. The consolidation of small units into large systems and the building of longer lines made progress possible and provided for a more efficient and smooth-running operation of the railroads in an age of industrial expansion.

The consolidation of the railroads began about the middle of the nineteenth century. The disadvantages of transferring merchandise, freight and passengers from one short line to another when distances had to be covered made consolidation inevitable. In most cases, varying gauges of railroads made impossible uninterrupted travel over several lines. Changes from one road to another were inconvenient and expensive. The process of combining several trunk lines and reorganizing them under one corporation came relatively early in railroad development. The first important long-distance consolidation was that of the New York Central Railroad in 1853, when eleven short roads were combined into one system. At the same time longer lines were planned, to be consolidated later. As early as 1833 a company was organized to connect New York City with Lake Erie by a railroad. Small sections of the line were built from time to time but not until 1851 did the track reach Dunkirk, the original objective on Lake Erie. The next year connection was made with Buffalo. This was the origin of the Erie Railroad, which after the Civil War annexed many short lines and gained the attention of the country as it became the center of scandals. The Pennsylvania began with a line from Philadelphia to the Susquehanna River and then absorbed many smaller railroads, reaching out to Cincinnati, Chicago, and St. Louis. By 1871 it controlled more than 3,000 miles of track. The Michigan Southern was formed by the unification of a number of small roads. The rate wars in New England began the consolidation of the Boston and Maine system. These are but some of the examples of the consolidation of the period.

Consolidation and combination continued into the twentieth century. The last years of the nineteenth century saw the rise of Edward H. Harriman, who attempted to dominate the entire railroad system of the country. He obtained control of the Union Pacific, Southern Pacific, Illinois Central, Oregon Short Line, and Chicago and Alton. He attempted to wrest control of the Chicago, Burlington and Quincy and the Northern Pacific from James J. Hill, which led to the Northern Securities Case. At his death in 1909, he controlled 25,000 miles of railroads and had interests in many others. By this time, the railroads of the country were controlled by seventeen systems, the chief of which in addition to Harriman's interests were: the Vanderbilt system, 21,000 miles from New York to the Great Lakes; the Pennsylvania system, 20,000 miles from New York to the Middle Atlantic and Mississippi Valley; the Morgan group, 18,000 miles in the Erie, New England and Southern areas; the Hill group, 21,000 miles, Chicago to the Northwest; and the Gould group, 17,000 miles, chiefly the southern transcontinental routes. The House of Morgan exercised financial control over the first four of these.

Railroad Mismanagement

As consolidation increased after the Civil War, many came to look upon the growing railroad systems as monopolies operating against the public interest. The farmers of the more settled regions of the West, hard-pressed as prices of their products declined while rates remained high, grew exceedingly antagonistic. Businessmen, also, condemned the roads, for it became increasingly difficult for them to compete with large enterprises, which were favored in various ways by the carriers. The flames of such opposition were fanned by disclosures of mismanagement, corruption, and the domination of a few influential financiers.



The Growth of the Railroads and Highways

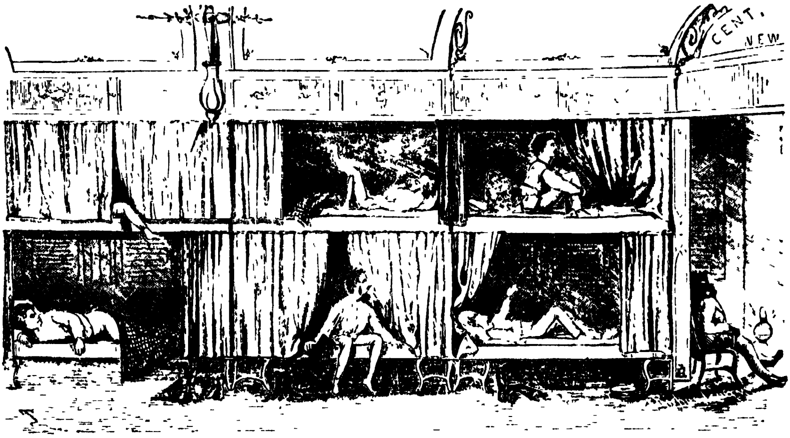
Among the financial abuses of the railroads, stock watering — adding to the securities of a company, without a corresponding increase in assets or capital — became common This was done for many reasons. In order to tempt investors to buy railroad securities generous stock bonuses were given. Another motive was to hide large profits that were being made. For example, a 10 per cent dividend might be cut in half by doubling the amount of stock and dividing the watered stock among the stockholders. Still another motive for stock watering was the desire to capitalize on the future growth in earnings and the value of property. Under such a plan the stock was not issued for immediate sale, but was held by the individuals composing the company, looking forward to future earnings which were expected to be large. Such a plan of over-capitalization also enabled a corporation to conceal its actual profits. H. V. Poor, the railroad expert, estimated that $2,000,000,000 out of the $7,000,000,000 of indebtedness carried by the railroads in 1883 represented watered securities.

The dishonest manipulation of the issues and sales of railroad stocks was another unsavory practive that was fairly common during the generation after the Civil War. This was often done by throwing watered stock on the market to force down its price and then buying it back at a lower figure. Not only was the investing public defrauded but railroad financiers and executives cheated and fought each other. The most flagrant example of the latter was the terrific battle for the control of the Erie Railroad, which was waged by Jay Gould, James Fisk, Cornelius Vanderbilt and Daniel Drew. Gould was the final victor, but he left the road impoverished. Not until 1942 did the railroad declare a dividend. It was revealed in 1885 that Gould had sold $40,000,000 of the railroad's stock — watered stock — and had pocketed the money himself.

Another abuse of the times centered in the evils that grew up in regard to construction companies. The Crédit Mobilier, which built 667 miles of the Union Pacific Railroad, was an outstanding example (p. 502). But there were many similar companies. It became a practice for rings of interested officials of new railroads to organize construction companies and award themselves contracts. Closely related to this plan was the method of defrauding stockholders not within the ring through the exorbitant payment of securities to banking syndicates that financed new roads or assumed the task of reorganizing insolvent companies. The original Southern Pacific Railroad cost only $6,500,000. But $15,000,000 was paid to the construction company that built it and $40,000,000 was given to the syndicate which financed it.

Special car companies were also organized by small groups of directors or inside stockholders. Express and special freight was not always in the hands of the railroads, and thus the public did not participate in the profits brought by the "cream of the traffic." The Star Union Line and Empire Line of the Pennsylvania Railroad, and the Merchant's Dispatch Transportation Company of the New York Central were examples of such companies. Cattle cars, poultry cars, coal cars and others were owned and controlled by special companies organized by railroad officials.

The most glaring abuses of this period centered in rate discriminations. The general principle adopted by the railroads was to "charge what the market would bear." As a result there was discrimination in commodities. For example, domestic groceries from Chicago to New York were transported at seventy-five cents per 100 pounds, while imported sugar and coffee was charged only thirty-five cents per 100 pounds. An illustration of discrimination between localities can be seen in the fact that it cost about as much to ship coal from the mines of the Reading Railroad to Philadelphia, a distance of ninety miles as from the same mines to Boston, 350 miles away. Discrimination also existed between individuals. Small shippers were at a disadvantage, for large shippers were favored. An investigation showed that between January and June 1880, the New York Central Railroad granted more than 6,000 special rates. This was typical of many railroads.



THE SARATOGA SPECIAL, 1872

Another serious abuse was pooling. The building of competing lines frequently led to violent rate wars. Rates were cut to a figure that wiped out profits. In 1876, cattle could be shipped from Chicago to New York for a dollar a carload. In order to get the business of large shippers like the Standard Oil Company, railroads offered large rebates, often to the ruin of their competitors. But out of these wars arose pooling arrangements. Different forms of pooling developed. The most common was for the railroad to divide the traffic, to divide the income at a prearranged ratio, or to divide the territory. Whatever plan was used, it operated against the small shippers and users of the railroads.

Another indictment against the railroads resulted from their participation in politics. Judges and legislators were often bribed to protect or favor the interests of certain railroads. An investigating committee discovered that the Erie Railroad in one year expended $700,000 for bribery and corruption, carried on the books as an "India rubber account." The manipulation of the New York courts by the New York Central Railroad was scandalous. As disclosures of mismanagement and corruption were made in the seventies and eighties, there is little wonder that the public became hostile toward the carriers. Of course, many railroads were honestly and well managed, but they received little or no publicity compared to the unscrupulous ones. The exceedingly rapid growth and the trend to consolidation made it impossible to secure large numbers of highly trained administrators and executives. Thus in many cases men with little technical knowledge could not understand or solve railroad problems. Such conditions also made possible the corruption and dishonesty of men like Gould, Fisk, Vanderbilt, and Drew.

Railroad Regulation

The first attempts at strict railroad regulation came in the states in the decade of the seventies (p. 441). Granger legislation, upheld by the courts, marked the beginning of control over rates and restrictions of certain abuses which were developing. But by this time, however, railroads had become largely interstate enterprises. Thus it was impossible for the states to regulate uniformly and effectively a railroad that crossed many state boundaries and operated in a number of states. Only federal legislation could do this.

The question of regulating the railroads was discussed in Congress. In 1872, President Grant, influenced by the discontent of the agrarians and by early granger legislation in the states, called the attention of Congress to the prevailing high railroad rates and asked for an investigation. The Windom Committee was appointed and made a report in 1874. It recommended that the government improve the waterways of the country and build lines to compete with the railroads for the purpose of forcing a reduction of their rates. It also advocated a bureau of commerce for collecting information relating to internal trade and commerce in order that steps could be taken to remedy such abuses as stock watering, rebates, and discrimination. The McCrary bill was drawn up in the House and passed (1874) but the Senate refused to consider it. While it did not follow many of the suggestions of the Windom Committee, it provided for a federal railroad commission and for regulation of the carriers. In 1878, a more conservative measure — the Reagan bill — passed the House, but no action was taken on it in the Senate. It forbade pools, discriminatory rates, drawbacks; it required the publicity of rates; and prohibited charging more for a shorter distance than for a longer one over the same route. In the years that followed many similar bills were passed by the House, but were pigeonholed in the Senate.

During the business depression of 1884–1885, when public opinion demanded an end of the serious abuses of railroad companies, the Senate Committee on Interstate Commerce, headed by Shelby M. Cullom, who earlier had been a member of the Illinois legislature and governor of the state when the Granger laws were put in effect, made a thorough investigation of the railroads. The committee had never been regarded as an important one, but under the chairmanship of Cullom, significant findings were made and the way was prepared for Congressional legislation. Bills were passed in the Senate which provided for an interstate commerce commission, but they were not so highly regulatory as the Reagan bills which had been passed by the House. The modification of the doctrine of the Granger decisions by the Supreme Court in the Wabash case (Wabash, St. Louis and Pacific Railway Company *vs.* Illinois, 1886), forced a compromise between the two Houses of Congress if the carriers were to be regulated and controlled. The vitiation of state regulation by the decision made action by Congress imperative. As a result the Interstate Commerce Act was passed in 1887.

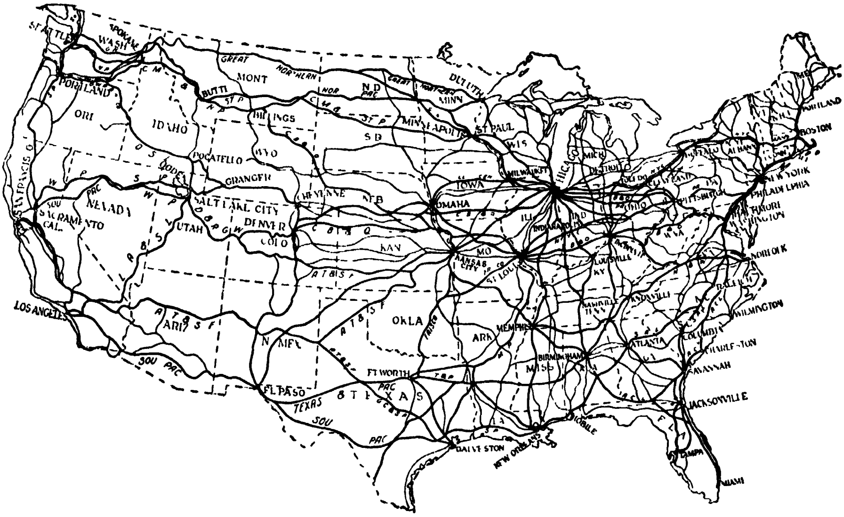
The Interstate Commerce Act laid down the general principle that all rates must be just and reasonable. It forbade discriminations between shippers, localities, and classes of freight. It prohibited charging more for a short than for a long haul over the same line, in the same direction, and under similar conditions, except with the consent of the proper authorities. It declared the pooling of railroad traffic or earnings illegal. And it required that all rates and fares be printed and publicly posted. The law also provided for the Interstate Commerce Commission (originally five members) to administer the act. It was given certain regulatory powers over the carriers, but not that degree necessary to develop an adequate transportation system. Its powers included those of investigating the railroads, prescribing systems of accounting, making reports, and providing publicity, but its important function was the administration of the rate policy, for it was authorized to hear complaints and examine the evidence of shippers and the railroads regarding unfair rates and to make decisions. But it had to depend upon the federal courts to enforce its rulings and it discovered that the courts were not friendly.

From the time that the act went into effect until 1906, the Interstate Commerce Commission did not enjoy high repute or authority.

Nor did it succeed in overcoming the abuses that were prevalent among the railroads. The willingness of the federal courts to receive new evidence in cases of appeal from the decisions of the Commission as well as to pass stern judgment on such decisions made the Interstate Commerce Commission quite weak. Until 1896, the courts refused to force witnesses to give evidence of an incriminating nature and the next year the Supreme Court held that the Commission did not have the power to decide on specific rates; it could simply declare a rate unreasonable and unjust. In 1897, the Supreme Court declared that certain conditions might warrant a railroad charging more for a short haul than for a long one, thus vitiating the "long and short haul clause." Of forty-two appeals taken to the Circuit Courts between 1887 and 1905, twenty-four were reversed and only seven were fully sustained. During the same period the Supreme Court reversed fifteen out of sixteen decisions. The chief weakness of the Commission lay in the fact that its decisions were not compulsory and that it had to initiate action in the courts when they were not accepted by the railroads. Abuses continued and the Commission became little more than a bureau of statistics. But it had made several thousand decisions informally, which were accepted by the carriers and shippers; and it had achieved much in securing rate publicity as well as in reducing the number of freight rate classifications. Its work during these early years was of educational value and as new laws gave it increased power, it became obvious that the period of railroad laissez-faire was over.

Partly on the initiative of some of the carriers, Congress in 1903 passed the Elkins Anti-Rebate Act, which strengthened that section of the Interstate Commerce Act relating to rebates and to rate-cutting. It struck at trusts and corporations which had gained power and influence as a result of secret and unfair rebates on the transportation of their freight over smaller competitors. The law provided for the prosecution and punishment of railroad corporations as well as their agents and officers for deviating in any way from the published schedules of rates. The receiver of a rebate as well as the giver was to be regarded as guilty of violating the law. About the same time (1903) the Expediting Act was passed, largely for the purpose of securing the more effective regulation of the carriers. It provided that any suit brought by the United States to the Circuit Courts under the Interstate Commerce Act, the Sherman Anti-Trust Act, or laws having a like purpose, should have preference over all other cases and in every way be "expedited and be assigned for leaving at the earliest practicable day." But it was the Hepburn Act that raised the prestige of the Interstate Commerce Commission and provided for a stricter regulation of the railroads.

The Hepburn Act of 1906 was largely the result of a crusade led by Theodore Roosevelt and was passed by Congress only after a battle. It empowered the Interstate Commerce Commission in cases brought before it to fix reasonable rates that should be observed until set aside by the courts. Thus, its decisions were binding, requiring the carriers to assume the burden of initiating litigation to test the validity of the Commission's orders. The law authorized the Commission to determine, prescribe, and enforce uniform systems of bookkeeping; it strengthened the Elkins Act of 1903 regarding discriminations; it forbade railroads from transporting commodities they had produced or mined except those necessary for their own use; it placed under the jurisdiction of the Commission in addition to the railroads, agencies directly connected with railroad transportation, such as industrial railroads, private car lines, and pipe-line companies; it forbade railroads to issue free passes to certain groups of individuals; and it increased the number of commissioners from five to seven.



The Railroad Network

Another step was taken to tighten government control over the carriers when the Mann-Elkins Act was passed in 1910. This law placed telegraph and telephone companies under the jurisdiction of the Interstate Commerce Commission. It gave the Commission the power to suspend proposed changes in railroad rates until the courts had the opportunity to investigate such increases. It provided for the establishment of a special commerce court to hear railroad cases which arose from the orders of the Commission. It also made vital the "long and short haul clause," of the Interstate Commerce Act. Several amendments were made to the parent law between 1910 and 1914. One of the most important was the Physical Valuation Act of 1913 which authorized the Commission to undertake the valuation of railroad properties as a basis for regulation. By 1914, most of the defects of the act of 1887 had been corrected, railroad regulation was being accomplished, and the Interstate Commerce Commission had grown in prestige and authority.

The First Transcontinental Railroads

The idea of connecting the Atlantic and Pacific by means of railroads was conceived early in the history of railroad transportation. In 1845, Asa Whitney, a merchant engaged in the China trade, petitioned Congress for a charter for a railroad from Lake Michigan to the north of the Columbia River. He believed that goods from the Orient could be transported from the Pacific coast to the Great Lakes and thence by the rapidly developing transportation system of the East to the cities of the Atlantic seaboard. He estimated the cost of the proposed road at about $65,000,000 and asked that a strip of land sixty miles wide along the route be granted for the purpose. He believed that cheap labor then migrating from Ireland and Germany could be used to build the road and proposed to pay the workers as far as possible in land. It was therefore planned to have them settle along the route, aiding in building up that part of the country. Whitney lobbied in Congress; meetings were held in eastern cities in favor of the project; boards of trade and chambers of commerce became interested; and many state legislatures petitioned Congress in support of the plan. Whitney's dream received much publicity, but Congress took no action.

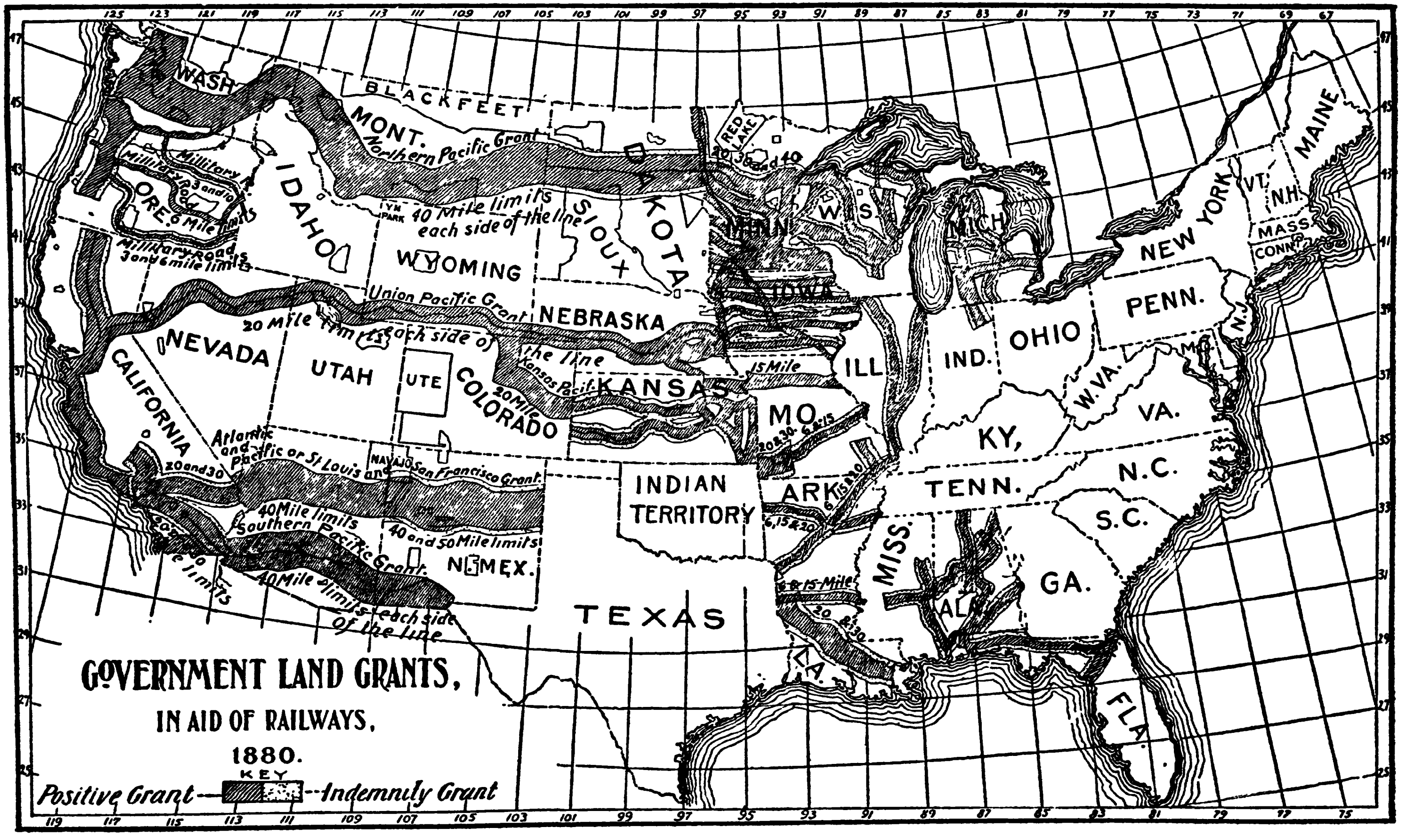
The acquisition and rapid growth of California after 1848 brought the need for a Pacific railroad again to the attention of the country. In Congress there was general agreement regarding the need for such a road and also that the government should aid in financing it. In 1853, Congress authorized a survey of various routes, which was accomplished under the direction of Secretary of War Jefferson Davis. The work was performed in an excellent manner by army engineers and the report set forth all possible routes. But the project of a transcontinental railroad was delayed because of sectional differences. The South wanted a southern route with a terminus on the Mississippi, while the North demanded a northern route with a terminus in Chicago or some other northern city. Stephen A. Douglas tried to harmonize the conflicting interests by suggesting a northern, central and southern road, constructed with federal aid, but his proposed bill failed. Most people believed that one railroad would be sufficient.

The secession of the southern states made possible a northern or a central route. The latter was decided on. In 1862, the Pacific Railway Act authorized the Union Pacific Railroad to build a line west from the Missouri River to the western boundary of Nevada. It permitted the Central Pacific Railroad to build a road from Sacramento to the eastern boundary of California. Both companies were granted five alternate sections on each side of a right of way, 200 feet wide. Loans were also made at the rate of $16,000 per mile in flat country, $32,000 per mile in hilly country, and $48,000 per mile in mountainous country, all secured by first mortgage bonds. In spite of such aid, it was difficult to attract private capital for an undertaking whose future earning power seemed remote and uncertain. An act of 1864 doubled the land grants and Congress took second mortgage bonds for its loans to the railroads. The Central Pacific was authorized to build 150 miles east of the California-Nevada line and two years later it was permitted to advance eastward until it met the westward-moving Union Pacific. Although work was begun on both lines in 1863, it was not taken up in earnest until after the Civil War when it was pushed to completion.

The Central Pacific Railroad was largely built by Chinese coolies in pigtails, wearing basket hats, colored blouses, and flapping pantaloons. The Union Pacific Railroad was constructed by Irish laborers and Civil War ex-soldiers. The hostility of the Indians of the plains made necessary trains equipped to resist attack and much of the work was done under the protection of armed men. Engineering problems also had to be solved. These were most difficult in the far West, for a larger number of tunnels, deep rock cuttings, and high trestles which spanned ravines and gorges, were required in that region because of the topography of the country. All work was accomplished without the aid of steam shovels, giant derricks and other modern appliances and machinery. Under the leadership of Grenville M. Dodge, engineer of the Union Pacific and Theodore D. Judah of the Central Pacific the lines were completed. The last two years were marked by a spectacular race between the two companies bidding for government subsidies, land grants and public favor. The race culminated in the dramatic union of the two lines at Promontory Point, near Ogden, Utah in 1869. Amid appropriate and impressive ceremonies, the "wedding of the rails" was celebrated. The Union Pacific had laid 1,086 miles of track; the Central Pacific, 689. It now became possible to travel from ocean to ocean entirely by rail and the time for such travel was cut down considerably.

The building of the first transcontinental railroad was unfortunately associated with corruption in an age which well knew the meaning of the term. A group of leaders of the Union Pacific organized a construction company, called the Crédit Mobilier, to which contracts were awarded to build much of the road. Proceeds from the sale of the railroad's first mortgage bonds and from government bonds loaned the road on a second mortgage together with the sale of stock, income bonds and land grant bonds, a total of $73,863,000, was turned over to the Crédit Mobilier to pay for construction estimated at about $50,000,000. In order to prevent a Congressional inquiry into the expanding activities of the Crédit Mobilier Oakes Ames, a member of the construction company and of Congress, as early as 1867 distributed a number of shares of the company to senators and representatives by selling them at par although the stock was believed to be worth double that amount. Some were permitted to pay for their stock out of accumulated dividends. In 1868, stockholders received for each share of Crédit Mobilier stock of $100 par value dividends of $60 in cash, $230 in first mortgage bonds, and $515 in Union Pacific stock. The scandal did not become known generally until the presidential campaign of 1872, when charges were made by the *New York Sun.* Congressional committees investigated and the House formally censured Oakes Ames and James Brooks, the government's directors of the road. Vice-President Schuyler Colfax, who had received some of the stock, had to retire from public life and many others in high positions, including James A. Garfield, had their reputations besmirched. The Central Pacific Railroad also organized an inside construction company to build its line. Under the leadership of Leland Stanford, Collis P. Huntington, Charles Crocker and Mark Hopkins, officials of the Central Pacific, the firm of Charles Crocker and Company was organized. Huge profits were paid. An attempt was made by Congress to investigate the company but all records had disappeared.

Before the first transcontinental railroad was built, Congress chartered several others. In 1864, the Northern Pacific Railroad Company received the right to build a railroad from Lake Superior to Puget Sound. It received large land grants but no government loans. In 1869 Jay Cooke and Company became its financial agents. Construction was begun in 1870 and had reached Bismarck, North Dakota in 1873 when Jay Cooke and Company failed because of heavy advances to the railroads. In 1876, the Northern Pacific became insolvent but



GOVERNMENT LAND GRANTS, IN AID OF RAILWAYS, 1880.

work was later resumed under the leadership of Henry Villard. It was completed to Portland, Oregon in 1883 and three years later reached Seattle, Washington. Congress chartered the Atlantic and Pacific Railroad in 1866 to run from Springfield, Missouri, down to the 35th parallel and across the Colorado River to Needles. It also received land grants, but encountered difficulties in financing its work during the Panic of 1873. It was reorganized, but a few years later was merged with the Atchison, Topeka and Santa Fé. The last of the continental federal land grant railroads was the Texas and Pacific, chartered by Congress in 1871. By this time tremendous grants of land had been given the transcontinental railroads.

The Inland Waterways

Until the Civil War, the inland waterways were the most important agencies of transportation in the country. By 1860, commerce on the Mississippi had reached a peak. The war then interrupted river traffic between the North and the South. Steamboats continued to run on the upper Mississippi and Ohio Rivers, but southward traffic on the great artery of commerce ceased almost entirely. In the North, the war worked greatly to the advantage of traffic on the canals and rivers as well as to the railroads, and transportation thrived in that region. Every means was used to transport war supplies. The South, far behind the North in water transportation facilities as well as rail, found its war efforts greatly hampered by the lack of canals, improved waterways, steamboats, and railroads.

After the war, most of the passenger traffic of the country came to be carried by the railroads and the trend to ship express and lighter freight by rail, which had really begun with railroad expansion about the middle of the century, developed in a most remarkable way. By 1870, the railroads were carrying more than four-fifths of such bulky products as grain. Cotton from the southwest, also, was no longer sent exclusively by water routes, but reached Atlantic or Gulf ports, such as Charleston, Savannah and Galveston, by rail. The high water mark of river commerce for the lower Mississippi was reached in 1880. More than 1,000,000 tons were received and shipped from St. Louis in that year. It fell to 141,000 tons in 1905.

Changes in transportation affected the river towns, although the railroads brought prosperity to most of them. New Orleans declined as a great river port, but it made material progress. St. Louis, whose commerce in 1850 had been almost entirely by water, within a generation had become a railroad center and its trade was largely carried by the railroads. By the time of the Louisiana Purchase Exposition, in 1904, the largest world's fair held up to that time, the commerce of St. Louis was a hundred times greater by rail than that by river.

With the exception of the Monongahela and the Ohio, whose banks were dotted with mills and mines, river trade diminished in spite of large sums of money spent by the federal government for the improvement of channels. Navigation on such rivers as the Hudson and Potomac came to be limited to ferry service, excursion trade, and transporting products locally. After the building of the transcontinental railroads and the settlement of the far West, transportation on the upper Mississippi, Missouri and Columbia also declined in relative importance.

Canal building also suffered after the Civil War as a result of rail competition. By 1900, almost 1700 miles of these artificial waterways had been abandoned and by 1914, one-half of the canals of the country had ceased to be used. But many important canals continued to serve many areas and a few new ones were built.

Among the important canals of the period was the Erie Canal. In spite of the railroads that paralleled it, annual tonnage reached a peak of more than 4,500,000 tons in 1889. This declined to 2,000,000 tons in 1905 and to 891,000 in 1920, although all tolls were ended in 1882. In 1903, as traffic was waning, the state of New York projected the New York State Barge Canal, a system of four canals, of which the Erie was the most important. It required an expenditure of about $150,000,000 to complete the system, which was opened to traffic in 1918. Another important canal was the Illinois and Michigan Canal, completed in 1848. It competed successfully with parallel railroads and reached its peak in 1882 when it carried more than a million tons of traffic, maintaining its position by cutting tolls to the lowest possible level. By the beginning of the twentieth century it had lost its importance. The eight-mile long Cape Cod Canal, connecting Buzzards Bay and Cape Cod Bay, after many proposals and failures was built in 1909–1914 by a private company. The federal government bought it in 1928.

The greatest of all canals within the United States was the Sault Ste. Marie Canal around the rapids in the Saint Mary's River at the outlet of Lake Superior. It was first built by the state of Michigan in 1855 and was taken over by the United States in 1881 and reconstructed. Tolls were abolished. By 1918, the United States government had built four locks (or canals) and the Canadian government one. Measured in terms of traffic it became the most important canal in the world before the end of the nineteenth century and has maintained its position as the world's greatest waterway. In the best year on record

92,622,000 tons of freight were borne through the canal. The traffic passes from Lake Superior to the lower lakes and has been largely iron ore, but also coal, lumber and grain.

During the first decade or so of the twentieth century a movement developed in the interest of improving and using the waterways more widely. It arose largely because of the congestion of the railroads as the United States became a great manufacturing nation and was also given impetus through the conservation movement as evidenced by the Inland Waterways Commission, appointed by Theodore Roosevelt. Not until the period of the First World War, however, did the movement bring tangible results in the greater use of the country's waterways.

Railroad competition was responsible for the decline of inland waterway transportation. The building of lines parallel to canals and unfair methods of competition were often important factors. But the railroads were also faster and more reliable; they had no navigation problems such as the shifting sandbars and hidden snags of the rivers and they were not impeded during the freezing weather of winter as were most of the northern canals. Further, they usually possessed better loading and terminal facilities than the waterways. Then, too, the courses of rivers were fixed, while railroads could be built in any direction to meet the changing demands of trade. The great rivers flow southward, whereas most of the trade of the country during this period tended to move east and west. Thus, transportation on the inland waters came to be confined largely to bulky and non-perishable goods, such as coal, iron, lumber, gravel and sand which did not demand rapid transportation.

The Great Lakes

The story of the white man's relation to the Great Lakes goes back to the seventeenth century when the French explorers and fur traders paddled their canoes across them in spite of hostile Indians. Jesuits called the linked lakes the "Seas of Sweet Water," for they were pleasantly surprised to find that their waters lacked the bitter salt flavor of the ocean seas. During the intercolonial wars of the late seventeenth and the eighteenth centuries, French and English traders fought each other in the regions of the five lakes — Superior, Michigan, Huron, Erie, and Ontario. As a result of the Treaty of Paris in 1763, the British became masters of the area and by the treaty which ended the American Revolution in 1783, Great Britain agreed to share this control with the United States. American authority in the region was not firmly established, however, until after the War of 1812, which was waged to a certain extent on and near the Great Lakes.

In the years that followed, Americans rushed westward across the northern part of the United States to find new homes. The Erie canal and the rise of steamboats on the rivers and Great Lakes gave the movement a great impetus. Before the Civil War, large settlements had been made, farms established, mines opened, and Michigan, Wisconsin, and Minnesota admitted to the Union.

After the Civil War, as river and canal transportation declined, traffic on the Great Lakes grew in a most remarkable manner. The freight of those regions, being bulky, was well suited to lake transportation. Coal was transported north and west, while iron ore, grain, flour, copper, and lumber were moved eastward. Duluth, Minnesota, and Superior, Wisconsin, became the great ore shipping ports. Other lake ports such as Milwaukee, Chicago, Detroit, Toledo, Cleveland and Buffalo shared the growing prosperity of the lake trade. Shipments on the Great Lakes increased from 25,000,000 short tons in 1889 to 125,000,000 in 1916. The waterway had become the most important in the world.

The size of vessels on the Great Lakes increased with the volume of traffic. In 1860, there were 435-ton vessels on the lakes. By 1900, lake steamers averaged 6,000 tons each and later these grew to 14,000 tons. Steel vessels increased in number from six in 1886 to about 300 in 1900. The whaleback boat, cigar-shaped with a small pilot house at its stern, was perfected for lake traffic. Improved steel barges carried the ores to the East and ingenious and speedy loading devices were developed for the ores and other commodities. By 1914, the tonnage of vessels on the lakes amounted to one-fifth of the entire merchant marine of the country.

The early vessels on the lakes were independently owned by individuals or small companies. By 1914, six steamship lines owned by the New York Central, Pennsylvania, Erie, and Lehigh Railroads were the most important in carrying passengers and light freight. Various companies controlled the traffic in coal and iron. For example, the Pittsburg Steamship Company, a subsidiary of the United States Steel Corporation, by 1914 owned about one-sixth of the American tonnage relating to the transportation of bulky commodities and exclusive of passenger traffic and light freight. Thus, most of the traffic, largely through consolidation, had fallen into the hands of a number of large corporations which for the most part worked together through interlocking directorates and other plans of cooperation.

The lake system was made possible through a number of canals. The Sault Ste. Marie, permitting boats to pass from Lake Superior into the Saint Mary's River and lower lakes, became of outstanding importance. Among others were the Welland, connecting Lake Erie with Lake Ontario, around the falls in the Niagara River, and the system of canals around the rapids in the St. Lawrence. By means of the Erie Canal and later the New York State Barge Canal the Lake routes were extended to the Hudson.

The Panama Canal

The greatest single feat in the field of American transportation during the period under discussion was achieved outside the continental boundaries of the United States when the Panama Canal was built. The work was begun under the vigorous leadership of Theodore Roosevelt. It was completed and thrown open to commerce in 1914.

The story of the Panama Canal goes back in time to the earliest Spanish occupation of the continent. Balboa, the first white man to see the Pacific Ocean in 1513, suggested that the two oceans could be connected at the isthmus. Some years later, Gomara, the Spanish historian, urged Charles V to undertake the project. "To a king of Spain," he stated, "with the riches of the Indies at his doorway, the barely possible becomes easy." But nothing was done. In the generations that followed, the Spaniards continued to dream about joining the Atlantic and Pacific, and surveys for that purpose were made from time to time. Two other possible routes for such a canal were also discussed — across Nicaragua and across the isthmus of Tehuantepec, the narrowest part of Mexico.

After Spain had lost her American colonies in the early part of the nineteenth century, the new Spanish American republics became genuinely interested in a ship canal across Panama. It was one of the subjects suggested for discussion at the Congress of American Republics, summoned by the liberator, Bolivar, which met at Panama in 1826. In 1846, the United States made a treaty with New Granada (later absorbed by Colombia) guaranteeing the neutrality of the isthmus of Panama and the sovereignty of New Granada in that region in return for the right of free transit across the isthmus by Americans. In 1855 the Panama Railroad was completed by American enterprise and for a number of years was used by pioneers and travelers from the East coast to California. In 1850, the conflicting interests of Great Britain and the United States in Central America led to the Clayton-Bulwer treaty. Both nations promised that their governments would not build or control a canal across Nicaragua, that both would encourage private enterprise to undertake the work, and that when it was finished, both powers would protect and guarantee the neutrality of the canal. Although the treaty specifically applied to a canal across Nicaragua, a general principle was established to encourage and protect a canal also across Panama or Tehuantepec. The terms of the treaty, in addition, applied to railway communication across the designated routes.

It was the French, however, who first attempted to make the dream of centuries come true. A Panama canal project was discussed at the Congress of Geographical Sciences at Paris in 1875. A company was formed and three years later Colombia granted it the right to build a canal within twelve years, but without impairing the rights of the United States under the treaty of 1846. In 1881, the French company began its work under the sponsorship of Ferdinand de Lesseps, the chief engineer of the Suez Canal. The American Panama Railroad was purchased and actual construction undertaken. The popularity of de Lesseps led thousands of Frenchmen to invest in the company. But many things militated against the success of the great project. The lack of foresight to prepare accommodations for workers; the ravages of yellow fever among the employees and the inability to cope with disease; unexpected engineering difficulties; and financial mismanagement in Paris brought failure. Between 1881 and 1888 about $262,000,000 were spent by the company, but only one-third of this amount had actually been expended on work at the canal. Extravagance, bribery and corruption doomed the project to failure. In 1888 work was suspended and the company became insolvent. Only one-fourth of the canal had been completed. A new company was organized and received permission from Colombia to complete the canal by 1904. But it, too, made little progress.

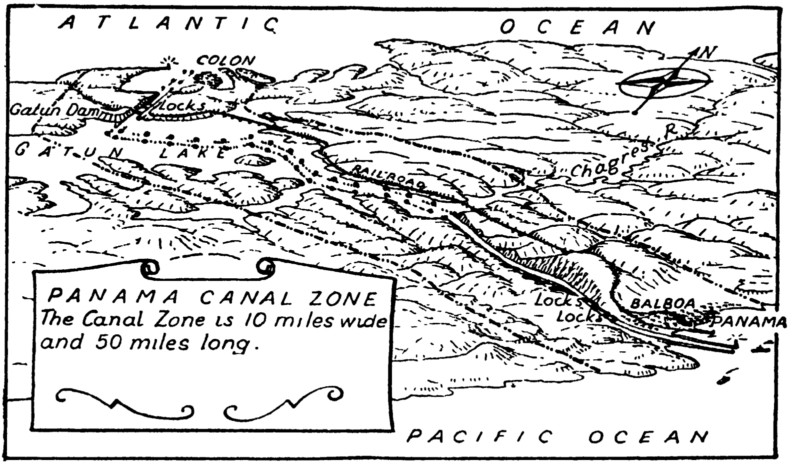
The activity of the French company at Panama led President Hayes in 1880 to state that an isthmian canal should be under American control. Garfield and Cleveland also protested. In 1887 and 1888 concessions were obtained by Americans to build a canal across Nicaragua and in 1889 Congress chartered the Maritime Canal Company for this purpose. Operations were begun at Greytown the next year but the panic of 1893 put an end to the work. Congress now became active and appointed several canal commissions between 1895 and 1900 for the purpose of investigating a proposed route. All commissions endorsed the Nicaraguan route, although the rights of the French company at Panama were now for sale at $109,000,000. At the beginning of the new century, President McKinley and Secretary of State Hay began negotiating with Great Britain for the abrogation of the Clayton-Bulwer treaty in order that the United States might undertake the building of a canal. After McKinley's death negotiations were continued by Theodore Roosevelt. As a result, the Hay-Pauncefote treaty of 1901 was ratified. It put an end to the pledge of 1850 and provided that the United States could build, control and defend a canal between the two oceans, subject to the principle of general neutrality.

Although American canal commissions had recommended the Nicaraguan route, Roosevelt preferred the Panama route and believed that the rights of the French company could be obtained cheaply. He was supported by William Nelson Cromwell, American attorney for the French company and by Philippe Bunau-Varilla, chief engineer for the company. Congress, undecided as to the better route, passed the Hepburn bill in 1902, which authorized the President to pay $40,000,000 to the French company if a clear title could be obtained. If not, work was to be undertaken at Nicaragua. The next step was to secure the consent of Colombia. Secretary of State Hay negotiated with Herran, the Colombian minister in Washington. In the proposed Hay-Herran treaty of 1903 the United States agreed to pay Colombia $10,000,000 and $250,000 each year for the lease of a strip of land six miles wide across the isthmus. The treaty, however, was not approved by the Colombian Congress. Since the rights of the French company were to expire the next year, it looked as though the Panama plan had come to an end.

The failure of the Hay-Herran treaty was a great disappointment to the inhabitants of the Panama isthmus, who looked forward to becoming prosperous after the completion of the canal. Prominent citizens including Dr. Amador and Bunau-Varilla conferred with Americans as to the advisability of breaking away from Colombia. Roosevelt took immediate action by sending American war vessels to within easy reach of the isthmus and ordered the commanders to keep the transit open and to prevent any armed force with hostile intent from landing on the isthmus. One vessel, the *Nashville,* arrived off Colon on November 2. The next day the local garrison at Panama seized control of the city and proclaimed the Republic of Panama. The movement was motivated and financed by Bunau-Varilla, working in the interests of the French company. Colombian forces, sent to the opposite side of the isthmus, were prevented from crossing to Panama by the commander of the *Nashville.* American interference was based on the authority of the treaty of 1846.

Three days after the bloodless Panama revolution, the United States recognized the new republic and a week later Bunau-Varilla was received by Roosevelt as its minister. A treaty between the United States and Panama followed. It was ratified by the Senate early in

1904. The United States guaranteed the independence of the Republic of Panama and agreed to pay it $10,000,000 on exchange of ratifications and $250,000 annually, beginning in nine years. Panama granted the United States in perpetuity a strip of land ten miles wide with "all the rights, power, and authority within the zone," which it would possess "if it were sovereign of the territory." The French company was paid its $40,000,000 and plans were immediately projected for building the canal. President Roosevelt was severely criticized in Colombia and in other Latin American countries, as well as by many in the United States for his part in the revolution. In a special message to the Senate, he held that Colombia had no right to prevent the transit of the world's traffic across the isthmus and that intervention by the United States was justified by treaty rights, international interests, and the well-being of "collective civilization."



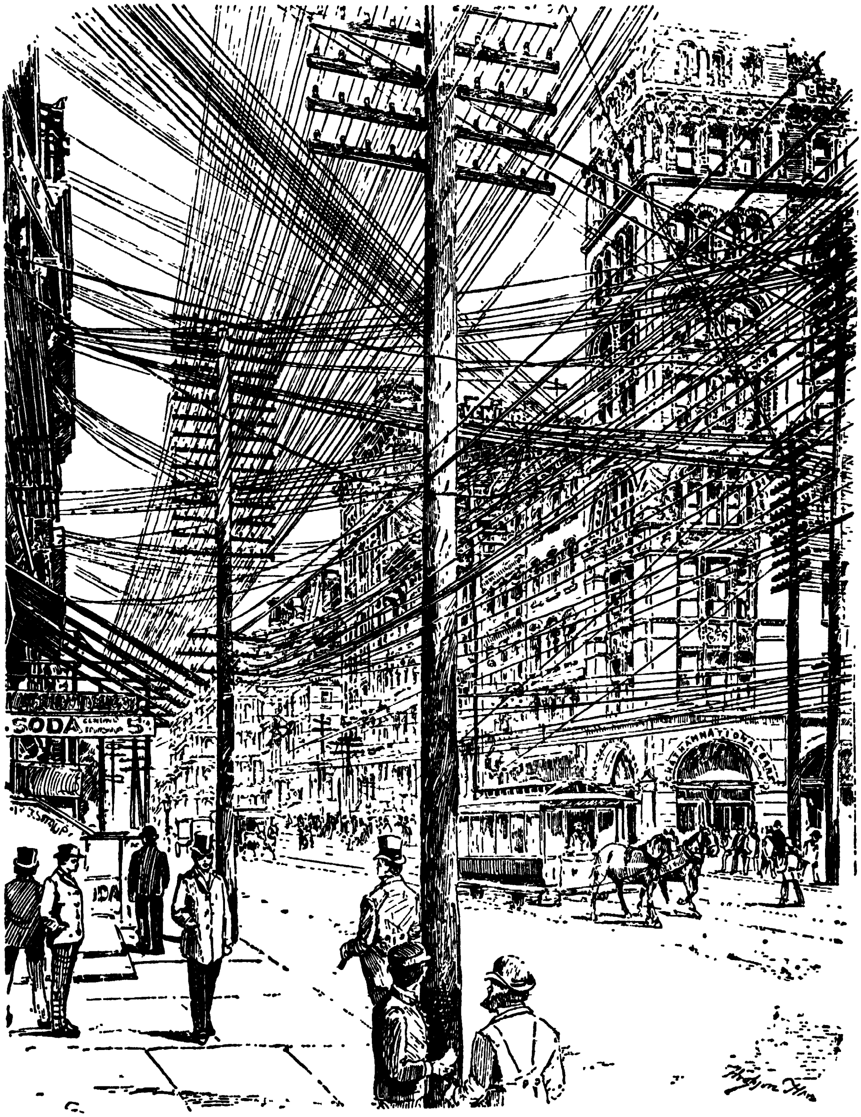
Work at the canal was begun in 1904 when President Roosevelt appointed a canal commission. But little construction was done until 1906 when Congress finally adopted the report of the engineers for a lock canal. Bids from contractors were opened the next year, but none was satisfactory. Roosevelt then placed the work under the control of the corps of engineers of the United States army. Colonel George W. Goethals became chief engineer and chairman of the Isthmian Canal Commission. Many engineering problems had to be met and the difficulties of securing labor overcome. Under William C. Gorgas, the sanitary department installed drainage systems and waged war on yellow fever and other tropical diseases, which made it possible for white men to live and work efficiently in that region. The canal was opened in August 1914. For various intervals in 1915 and 1916, traffic was interrupted because of landslides at the Gaillard Cut (formerly called the Culebra Cut), but since 1917, shipping in the canal has been unimpeded. The total cost of construction was over $370,000,000 — more than two and one-half times the original estimate. But tolls collected from vessels passing through the canal have more than paid for its cost.

Prior to the opening of the canal several problems had to be solved. One had to do with the government of the zone. This was met by granting governmental jurisdiction to the army department. Another related to tolls. A clause in the Panama Canal Act passed by Congress in 1912 exempted coastwise vessels of the United States from the payment of tolls. The British government objected on the ground that this violated a provision of the Hay-Pauncefote treaty which stated that the canal was to be opened to the vessels of both nations on equal terms. Early in 1914, President Wilson asked Congress to repeal the exemption clause. This was done before the canal was opened. Still another problem related to the fortification of the canal. The Hay-Pauncefote treaty stipulated that the United States could police the canal but not fortify it. As the work drew near to completion the United States decided that it would be necessary to place guns at each end. Great Britain, realizing the necessity for such protection, offered no objections.

In accord with his Latin American policy, Woodrow Wilson decided to appease Colombia, which had been hostile to and suspicious of the United States since the establishment of the Republic of Panama. He proposed a treaty including an apology for the action of the Roosevelt administration and an agreement to pay Colombia $30,000,000. Roosevelt denounced it as a "blackmail treaty" and his friend Senator Lodge led the fight against its ratification. As a result it failed. In 1921, partly because American interests found it difficult to do business in Colombia and partly because of the desire for commercial concessions in that country by American capital, the treaty was revived. In the meantime, Roosevelt had died and the way was open for its passage. The apology was omitted from the treaty, which provided for the payment of $25,000,000 to Colombia. Senator Lodge reversed his position and under his leadership the treaty was ratified by the Senate.

Communication

After the Civil War, marked advances were made in telegraphic communication. By 1865, the Western Union Telegraph Company had absorbed many smaller companies and its lines stretched from the Atlantic to the Mississippi Valley and from the Ohio River to the



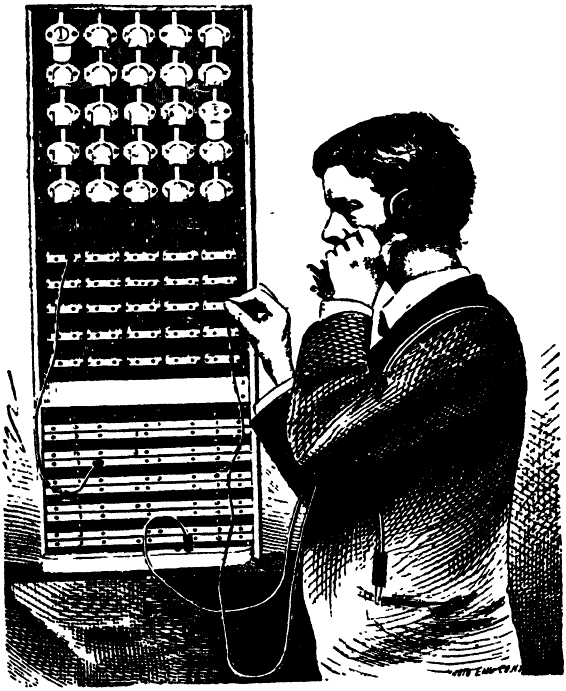
RESULTS OF THE DEVELOPMENT OF ELECTRICAL COMMUNICATIONS, BROADWAY AND JOHN STREET, NEW YORK, IN 1890

Great Lakes. Its capitalization rose to $41,000,000 in 1867. In the years that followed it was threatened by several rival companies, the chief being the Atlantic and Pacific. Jay Gould obtained control of this company in 1874 and seven years later sold it to the Western Union. The capital stock of the company was now $80,000,000. In the years that followed, the Western Union maintained its position as the chief telegraphic company on the continent. In 1940, there were 2,401,000 miles of telegraph wire strung over the country, of which Western Union owned 1,915,000 miles and Postal Telegraph Incorporated, 398,000 miles.

Many improvements and new inventions were made in the field of telegraphy. The stock ticker — a printing telegraph system — was first introduced by the New York Stock Exchange in 1867. In 1872, Thomas Edison invented a device for sending two messages in opposite directions over the same wire at the same time. In the years that followed the multiplex telegraph was improved to send many messages at once over the same line. In 1919, improvements were perfected to the multiplex system so that the wires could be used for both telephone and telegraph messages simultaneously. Other devices for rapid telegraphy, made necessary by the great amount of business in the cities, appeared and were projected. After 1900, printing telegraphs began to displace clicking keys and in more recent years the teletype has improved efficiency.

Experiments with the wireless or radio telegraph were also begun, although these were first tried by Europeans. Long ether waves were discovered by Heinrich Hertz, a German scientist, in 1887. In 1895, Marconi in Italy began experimenting with wireless waves and produced the first practical transmitter. Two years later, he sent a message a distance of fifteen miles and in 1901 the first wireless message was flashed across the Atlantic. In 1906, DeForest projected the three-element vacuum tube. Its introduction as a detector opened a new era in radio telegraphy. More recently this invention has made possible the development of the radio telephone.

The telephone was also perfected during this period. For generations men had attempted to transmit the human voice over distances. Between 1872 and 1875, Alexander Graham Bell of Boston, a teacher of diction and of the deaf; and also Elisha Gray, an electrical inventor of Highland Park, Illinois, worked independently along lines of producing a "harmonic telegraph." Both men on the same day in 1876 filed applications for patent rights at the Patent Office, but Bell received the patent in spite of the attempts of Gray to prove his own priority. Few in the United States realized the value of the invention and the Western Union Telegraph Company refused to buy it for $100,000, although a short time later it attempted to manufacture and unsuccessfully install telephones under the rights of another patent. In England the London *Times* called the invention the "latest American humbug." Bell and the two men who financed him, Thomas Sanders and Gardiner G. Hubbard, organized the Bell Telephone Company. No sooner had Bell received his patent in 1876 than many other inventors who had been working on the idea made themselves known. For many years the holders of Bell's patent had to defend themselves against innumerable law suits, but they were able to fight off all claimants. Stock in Bell's company jumped from $50 to $800 within a year.

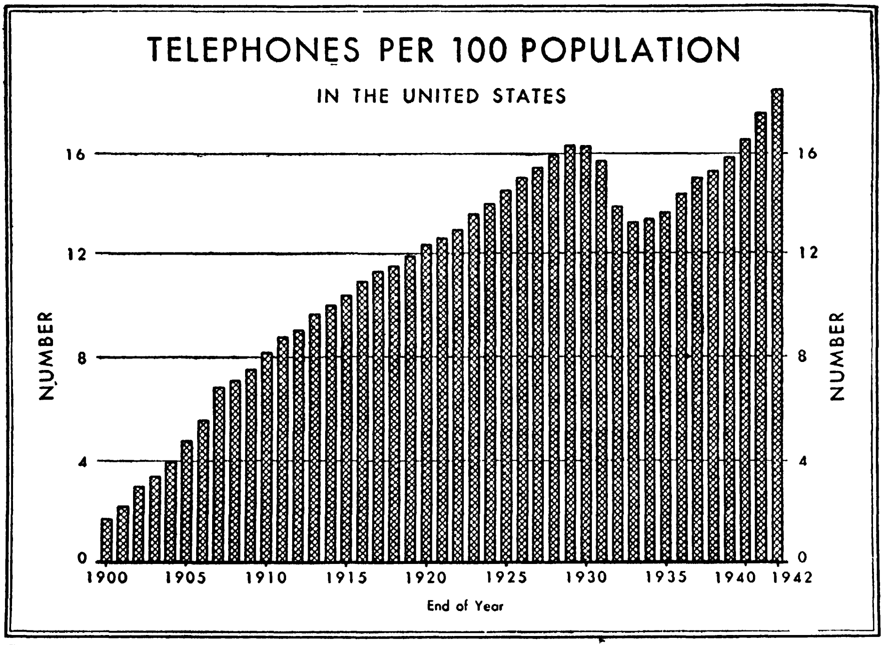


Courtesy of the Bell Telephone Co. Laboratories

Western Electric Co. Universal Switchboard, 1879

In 1880, the American Bell Telephone Company was established; five years later a subsidiary company, the American Telephone and Telegraph Company, was built to own and operate long distance lines. In 1900, the American Telephone and Telegraph Company became a great holding company. Five years later an attempt was made to take over the Western Union Telegraph Company, but the government brought suit under the Sherman Anti-Trust law and forced the separation of the two companies (1913). Following the expiration of the original Bell patent in 1893, a number of small companies sprang up, reaching their greatest strength in the early years of the twentieth century.

The first public exhibition of the telephone took place in 1876 at the Centennial Exposition in Philadelphia. Within a year, 800 telephones were in use and by 1900 more than 1,000,000 had been installed in the United States alone. The expansion of the system was phenomenal. In 1926, there were 57,000,000 miles of telephone wires in the country and $3,350,000,000 invested in telephone plants and equipment. Of the 26,000,000 telephones in the world at that time, 17,000,000 were owned by the American Bell Telephone Company. Many improvements were also made during this period of development, including the multiple switchboard, the Pupin coil which made transmission over smaller wires possible, and, more recently, the automatic telephone.



Courtesy of the American Telephone & Telegraph Co.

CHAPTER XXIII

The Financial System

Rise of the National Banking System

The need for a centralized banking system, a uniform currency, and a wider market for government bonds led to the creation of a new banking system during the Civil War. The National Currency Act of 1863 and its complete revision by the National Bank Act of 1864 established the new system. It was based largely on a number of reforms that had taken place in some of the states shortly before, such as note-issues secured by bonds and strict supervision and inspection. Under the national banking law, banks could be organized by five or more persons. They were authorized to issue notes for circulation by purchasing government bonds with their capital stock. Bonds amounting to at least one-third of their capital were required to be deposited with the government. At first the issue of notes was limited to 90 per cent of the face value of these bonds, but a change was made in 1900 to permit circulation up to the full value of the bonds, as long as they stood at par or above par. The capital stock required for organizing a national bank varied with the size of the city or community in which it was located. The minimum capital required by the act of 1864 was $50,000 for banks in towns of 6,000 or less; the minimum for the largest cities was $200,000. Under the act of 1900 national banks could be organized with a capital of $25,000 in towns not exceeding 3,000. Strict supervision of the banks was provided by a system of examiners, directed by the comptroller of the currency, under the jurisdiction of the Treasury Department.

Until 1913, when the Federal Reserve Act was passed, the Treasury Department had entire administrative control over national banks. It chartered them, printed and issued circulating notes, examined and supervised them, and assumed complete charge when a bank became insolvent. Most of these duties are still carried on by a special bureau under the direction of the comptroller of the currency, although changes have occurred, as for example, the elimination of national bank notes. The Treasurer of the United States has custody of the bonds deposited and performs other duties.

Soon after the national banking system was established, popular opposition to it appeared. Criticism continued throughout the period. In the West, especially, antagonism became pronounced. The banks were not permitted to issue loans on real estate and since this was the only form of property that most farmers possessed, they naturally opposed institutions that were so restricted. National bank notes also became a controversial question in the years following the war as western agrarians demanded "bloodstained" greenbacks in almost limitless quantities in order to secure rising prices for their commodities (p. 444). Opposition also came from different groups all over the country who believed that the banks received a double profit through the interest on the bonds deposited with the government and the interest on their currency issued on the security of the government bonds. The old cry of monopoly was also heard throughout the land from time to time as critics of the system proclaimed that bank officials and financial interests controlled elections and sent stockholders to Congress. Opposition to the banking system, however, centered in the rural sections of the growing West where population was scattered, the supply of capital small, and distrust of the richer East more deeply rooted.

The national banking system was a great improvement over the older heterogeneous state systems that prevailed before the war and it played a vital role in providing the financial sinews for the economic structure of the country during the period of tremendous industrial and agricultural growth. By the end of the nineteenth century, the proportion of state banks had increased to such an extent that they exceeded the number of national banks. Beginning about 1887, changes and improvements were made in state banking laws. As time went on two major faults in the national banking system became more evident. These were the inability of the currency to expand and contract according to the changing needs of business; and the scattered deposit reserves, kept in the banks of the larger cities, which in times of distress resulted in the ruin of good as well as weak banks when the lesser banks demanded a part of their reserves and runs occurred. These weaknesses became quite obvious in the major panics of the period and were remedied by the Federal Reserve Act of 1913.

Panic of 1873

The first serious financial depression after the Civil War began in 1873 and extended over a period of almost five years. While it was largely the result of ill-adjusted production and inflated credit, it had many causes and was closely related to world-wide conditions. Following the American Civil War, the Austro-Prussian War, and the Franco-Prussian War, European nations began to experience hard times and foreign investors proceeded to call in their American loans. These had become excessive from the time of the Civil War, for between 1861 and 1870 the United States had borrowed on national, state, railway and other securities more than $1,500,000,000, which meant large annual interest charges. The financial needs of nations engaged in the wars, French indemnity payments, railroad speculation in Russia and middle Europe, and commercial dislocations caused by the opening of the Suez Canal, all contributed to Europe's problems, which reacted on the United States.

Within the United States the North had witnessed a period of too-rapid expansion, which had resulted in overspeculation in railroads, manufacturing and building. Together with credit inflation the country experienced currency inflation and governmental waste. Overexpansion in the agricultural West — achieved largely on borrowed money — produced surplus crops, which resulted in continued falling prices. After the Franco-Prussian War, it became increasingly difficult to market crops abroad at reasonable profits. Thus overspeculation, waste, extravagance, fluctuating prices and a large indebtedness brought the country to the brink of disaster. With a confidence born of folly, the United States had again mortgaged itself to the future and a day of reckoning was near.

The element of fear also did its part to extend the depression which affected every operation of finance, industry, transportation and commerce. The faith of investors — both foreign and domestic — was shaken by the exposures of political, economic and social corruption during the first administration of President Grant. The disclosures regarding the waste and extravagance of the carpet-bag governments in the South which resulted in increasing the debts of the southern states; the attempt of Jay Gould and James Fisk to secure control of the gold supply of the nation, which culminated in the ruin of hundreds of investors and speculators on "Black Friday," 1869; the Crédit Mobilier scandals in connection with the building of the Union Pacific; the activities of the Whiskey Ring — which included men near the President — in defrauding the government of large amounts of internal revenue taxes; the bribery of the New York judiciary by the Erie Railroad; and the strangle-hold of corrupt politicians on the cities, such as the Tweed Ring in New York and the Philadelphia Gasworks ring, brought apprehension and undermined the confidence of many in the country's securities and in the economic structure of the nation. The losses in the fires in Chicago, Boston and Portland also added to the worries of businessmen generally as nerves were stretched taut to the breaking point.

While there had been earlier warnings as crashes occurred, the panic was precipitated in September, 1873 by the failure of Jay Cooke and Company, which had invested heavily in the securities of the Northern Pacific Railway. The business of the entire nation soon revealed its instability. Business firms, banks, and industrial corporations failed; manufacturing plants shut down. President Grant hurried to New York to consult with Vanderbilt and other prominent business men. The New York Stock Exchange closed its door for ten days. Bankruptcy overtook a host of companies and individuals. Business failures increased from about 6,000 in 1874, to almost 8,000 in 1875, and to more than 9,000 in 1876. Most railroads went into receivership and railroad construction practically ceased. In 1875, more than 500,000 men were out of work. Long bread lines and soup kitchens appeared in the cities, tramps swarmed the countryside; and in the absence of organized public relief, private charities did the best they could to aid and keep alive the destitute. During the long depression, wage reductions in the industries that were able to keep going resulted in strikes — especially among the Pennsylvania coal miners, the New England textile operatives, and the nation's railroad workers.

The difficulties in securing currency led to the issuance in many cities of clearing-house certificates. Owing to the clamor for money, the Secretary of the Treasury, under the stress of the emergency issued additional greenbacks. Congress passed a bill in 1874 for the permanent increase of the paper currency to $400,000,000. President Grant vetoed the measure and his stirring veto message marked a turning point in the agitation for an inflated currency. The next year the Resumption Act was passed. Its enactment, however, was not part of a far-seeing program. It was essentially a compromise between the inflationists and those who demanded a conservative currency (p. 446). It provided that the amount of greenbacks to remain in circulation was limited to $300,000,000 although the amount was changed in 1878 to that outstanding — a total of $346,681,000.

By the end of 1878, the business curve began to turn upward. Readjustment had taken place as the depression spent itself. The bumper crops of 1878 and 1879 together with increasing demands from Europe for farm products aided recovery. The fatalities among small companies and partnerships were followed by the establishment of an increasing number of corporations, better fitted to weather financial storms and chartered for a long life. Manufactures found new markets in distant lands; machinery, especially, was exported in increasing quantities. The balance of trade improved; gold began to flow in the direction of the United States; and foreigners invested in American securities. Employment increased; immigration figures grew larger; railroad building was resumed; and confidence was restored. Good times followed, but were interrupted in 1881, 1884, 1890 and especially after 1893. During the last half of the nineteenth century, periods of prosperity were short and were usually followed by long downward swings.

From a cartoon by C. S. Reinhardt in "Harper's Weekly," 1874

A CARTOON PROTESTING AGAINST THE ISSUE OF GREENBACKS TO AMERICAN CITIZENS WHILE SILVER TRADE DOLLARS WERE USED IN THE ORIENTAL TRADE

Panic of 1893

The year 1893 marked the beginning of another severe business depression which lasted until 1897. As early as the fall of 1890, it became evident that the business cycle was reaching a low level. In addition to the usual signs of over-speculation and inflated credit, there were other factors in the background. Even in the decade of the eighties as giant corporations arose, the expansion of investment and speculation had exceeded the possibilities of immediate profitable use. Prices — unlike those toward the termination of other speculative booms — tended generally downward.

The failure of the English financial house of Baring Brothers in 1890, as a result of the collapse of gold mining enterprises in South

Africa and speculation in Argentine securities, seriously affected the United States. The financial problems that followed forced English investors to sell their American securities, which caused a brief panic at the New York Stock Exchange. The warning that economic conditions were not sound, however, was not heeded. Speculation in stocks and merchandise continued. In 1892, national bank loans rose about $165,000,000. The Sherman Silver Purchase Act resulted in increasing a depreciating silver currency. The election of 1892 which brought the Democrats completely into power caused uncertainty and fear among many business men regarding the free coinage of silver and a possible reduction in the tariff. But only chance had put off the panic until after the election. The stage was thus set for a depression which brought misery, suffering, and distress in its trail.

The failure of the Philadelphia and Reading Railroad in February and the National Cordage Company in May ushered in the panic of 1893. Many banks all over the country suspended business; an increasing number of commercial and industrial failures followed; a stock market panic occurred; the gold reserve of the government fell below the accepted minimum of $100,000,000; and business was demoralized. The Erie, Northern Pacific, the Union Pacific and other roads followed the Philadelphia and Reading into bankruptcy until one-fourth of the railroad capital was in receivership. In the first year of the panic there were more than 15,000 business failures with liabilities amounting to $437,000,000. During the same year, 158 national banks, and several hundred state and private banks closed their doors. Securities fell in value; the dividends of companies that survived were cut or omitted; factories were shut down; strikes occurred in industries that managed to continue; committees were organized in the cities to provide food and relief for large numbers of unemployed; and the West suffered through the failure of the corn crop in 1894 as well as the continued decrease of farm prices. One of the chief difficulties of the period was a lack of currency and as in the depression of 1873, clearing-house certificates had to be used in many cities.

The distress of the unemployed led to marches on Washington. The most publicized march was that led by Jacob S. Coxey, a self-made business man of Massillon, Ohio, who advocated the building of good roads, financed by federal issues of fiat paper money as a means of solving the unemployment problem. Together with Carl Browne, a spectacular and picturesque western associate, Coxey organized "The Commonweal of Christ" and made preparations at Massillon for the journey to Washington to begin on Easter Sunday, 1894. The "petition in boots" or the "living petition" of the unemployed to the capital left on schedule, but instead of the expected 100,000 men only a few hundred reached their destination in spite of extensive advertising, newspaper publicity, a novel movement, and picturesque leaders. On May day a parade was held in Washington, but when Coxey, Browne, and others advanced toward the steps of the Capitol, they were arrested, tried, convicted, and sent to jail for carrying banners and walking on the grass of the Capitol grounds. Congressmen did not wish to hear their pleas. Other industrial armies were formed as far west as the Pacific coast and ambitiously planned to travel to Washington. The most important were Fry's army from Los Angeles and Kelley's from San Francisco. They took free rides on freights and ran them across the plains. Many communities furnished them with provisions and in some cases paid their transportation a part of the way eastward in order to get rid of them. Although thousands joined them along the line of march, not more than 1,000 reached Washington. As in the case of Coxey's army, they found that government officials were not interested in their petitions or in their condition.

Early in the depression the government found itself in difficulties, for expenses proved to be larger than income and it became more and more difficult to maintain the gold reserve of $100,000,000 to cover in part the circulation of greenbacks. Under such conditions, the Treasury was faced with two choices: (1) the borrowing of gold by means of issues of bonds; (2) the redemption of the government's paper currency in silver. The Sherman Silver Purchase Act provided that silver certificates might be redeemed in gold or silver and that it was the policy of the United States to maintain the two metals at a parity with each other. As a result gold was paid by the Treasury when silver certificates were presented for redemption. The ebbing gold reserve presented a serious problem. President Cleveland refused to consider redeeming the paper currency with silver, for the depreciated silver dollars would have driven gold out of circulation and put the currency system of the country on a silver basis. As the first step in the solution of the problem, the President in June, 1893 summoned Congress to meet in special session to repeal the Sherman Silver Purchase Act. Congress considered the question of the silver purchase law. After much heated debate and many lengthy speeches, the act was repealed and the purchases of silver by the government came to an end.

As early as April, 1893, the government's gold reserve fell below the generally accepted level of $100,000,000. By January, 1894, it had declined to $70,000,000, which was considered by many to put the country in a perilous financial condition. Under the authority of the Resumption Act of 1875, the Secretary of the Treasury in January, 1894, issued a $50,000,000 ten year series of bonds, at 5 per cent interest, to be sold for gold. A syndicate of New York bankers took the issue which cost them $58,660,000, but as part of the payment, they obtained $24,000,000 in gold from the Treasury in exchange for greenbacks and silver certificates. In November, 1894, another $50,000,000 government bond issue was made, but one-half the gold used to purchase it was likewise secured from the Treasury. An "endless chain" was thus created and the drain on the gold reserve became serious. In February, 1895, it declined to $41,000,000. It was useless to try to secure gold under ordinary conditions of borrowing and therefore the government made an agreement with J. P. Morgan and a group of bankers for the purchase of 3,500,000 ounces of gold to be paid for with United States 4 per cent, thirty year bonds at $104.5. The bankers agreed to import one-half of the gold; not to withdraw any money from the Treasury; and to use all possible efforts to prevent others from securing Treasury gold. The President was severely criticized by the free silverites and was unjustly accused of being in league with Wall Street interests. A fourth issue in January, 1896 was offered to the public through bids, 781 of which were accepted. In spite of this $100,000,000 issue, bearing 4 per cent interest, which was sold at premium of $11,000,000, the reserve did not rise much above the traditional danger line and by July, 1896 fell to $90,000,000. This was due to the hoarding of gold by the public in fearful anticipation of the victory of the bimetallists in the November elections of that year. The victory of the Republicans, who were pledged to a gold standard, brought much of the precious metal from its hiding places in the months that followed. As a result, large amounts found their way to the Treasury. As business conditions improved and revenue income increased, the problem of the endless chain was solved and the reserve could be maintained.

The year 1894 marked the depth of the depression. Bankruptcies, marches of the unemployed, strikes, soup kitchens, the condemnation of the new Wilson-Gorman Tariff, the failure of the corn crop, and the widespread belief that trusts were largely responsible for the tragic condition of the country made the year one of the darkest in American history. Many adherents were added to the cause of free silver and the movement, led by the West, gained momentum. While conditions improved in 1895, it was not until the next year that the turning point in the economic condition of the country occurred. The result of the election of 1896, which restored confidence to the financial and business interests; the gradual depletion of stocks of manufactured goods; the poor European crops of 1897, which stimulated American exports and gold imports; and the increase in the world's supply of gold through new discoveries, such as those at Klondyke, together with improved processes in gold mining, all aided in restoring prosperity and a period of slowly-rising prices followed.

The Gold Standard

From December, 1861 to January 1, 1879, the country was on a depreciated paper money standard, although government currency bore on its face the promise to pay gold on demand. The currency law of 1873 authorized the free and unlimited coinage of gold and made it full legal tender at a time when the silver dollar was dropped from the list of coins to be minted. But the country remained on a depreciated paper basis for almost six more years. Greenbacks and national bank notes comprised the principal money of the period. The nation returned to specie payments at the beginning of 1879 in accord with the terms of the Resumption Act of 1875. Paper currency then reached a parity with gold.

The struggle for a bimetallic currency, sponsored largely by the Westerners, which resulted in the silver legislation of 1878 and 1890 (pp. 447, 450), was decided finally by the election of 1896. The victory of the Republicans put an end to the general demand for the free coinage of silver. Three years earlier the Sherman Silver Purchase Act of 1890 had been repealed. But it was not until 1900, on the eve of another political campaign, that the pledge for a gold standard was enacted into law. The Gold Standard (or Currency) Act of 1900 remained the basis for the monetary system of the United States until 1933. It provided that the unit of value should be the gold dollar consisting of 25.8 grains of gold, nine-tenths fine; that all other money of the United States should be maintained at a parity with gold, and that a reserve of $150,000,000 in gold should be maintained at all times by the Secretary of the Treasury. Under this system the mints were opened for the unlimited coinage of gold and imports and exports of gold were unrestricted.

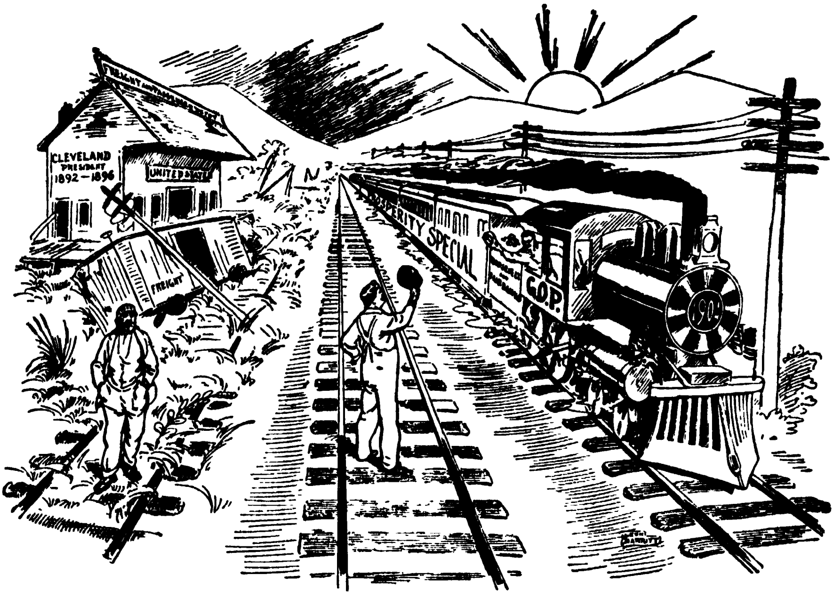
By adopting a gold standard, the United States, like other nations in a similar position, hoped to give stability to the purchasing power of its money unit. All money, whether paper, silver, nickel or bronze, had the same relative value as the gold unit. At the same time the value of the legal money unit was tied to the value of a fixed weight of gold. The gold standard, however, was not too successful in accomplishing the first objective — stabilizing the domestic price level, for from 1879 to 1933 when it was actually in effect, prices changed considerably. Taking the wholesale prices of 1913 as 100, wide variations may be noted throughout the period. In 1882, the index figure was ninety-eight; in 1897, sixty-seven; in 1920, 226. The lack of price stability was due to many factors, including the demand for commodities, the activities of producers, speculation, and manipulation. In addition, the amount of standard money varied, depending largely on the quantities of gold that were mined. Then again, the amount of money did not fluctuate to a satisfactory extent with the demand for it as business conditions moved up and down.

A second reason for the adoption of the gold standard was the expectation of each country to establish the value of its own money unit in a fixed relation to the value of gold units adopted by the other countries. Thus foreign trade and investment could be encouraged and facilitated. This was largely attained. But at the same time, the relations between powerful central banks and governments became closer. The banks, as they learned to control the flow of gold to some degree, came to occupy a position whereby they were able to serve purposes of their governments, which were not primarily in the interests of international trade. Thus by the time of the First World War certain practices were being developed within many nations in the direction of the control of gold for the individual benefit of those nations.

The Panic of 1907

From 1897 business took an upward trend until 1907, although interrupted by the mild recession of 1900 and the "Rich Man's" panic of 1903–1904. The latter was a very brief financial depression. Business prosperity marked the early months of 1907, but prices of securities and commodities began to decline in the spring of that year. Greatly increased speculation in 1906 created heavy demands on the banks and discount rates rose abnormally. Resources of financial institutions were strained and early in 1907 some liquidation took place. Difficulties were encountered in financing new railroad, industrial, municipal, and foreign securities floated in the United States. The national banking system was weakened by the growth of trust companies, which, almost unrestricted, were expanding into the field of commercial banking. The crash, however, did not occur until the fall of the year.

The failure of the Knickerbocker Trust Company of New York and the Westinghouse Electric and Manufacturing Company in October, 1907 ushered in a relatively brief depression. A stock exchange panic followed these failures. Many banks and trust companies suspended business or were liquidated. Again clearing-house certificates were used in the emergency. The Treasury Department and J. P. Morgan and Company each loaned the New York banks millions of dollars. By the end of the year the acute stage of the panic was passed. But business conditions remained bad throughout the greater part of 1908 as business failures continued at a high rate, railroad traffic only slowly recovered, the steel industry was depressed, and bank balances remained low. President Theodore Roosevelt attributed the panic to "the speculative folly and flagrant dishonesty of a few men of great wealth" and he attacked the malpractices of business and industry.



From the Library of Congress Collection of Cartoons.

A CONTRAST — A 1904 CAMPAIGN CARTOON

Returning prosperity led to "Don't give the Democrats another chance," as campaign material.

Demands for Banking Reform

The brief panic of 1907 resulted in demands in Congress for legislation that would strengthen the banking and currency system of the country and which would remedy their defects. Many suggestions were considered but finally the Aldrich-Vreeland Bill of 1908 was passed. It aimed to give elasticity to the currency by permitting national banks to issue emergency notes on the security of the bonds of states, counties, cities and towns; or through national currency associations on the pledge of commercial paper. A tax up to 10 per cent a month was intended to discourage abundant issues. The banks did not take advantage of this provision to issue emergency currency until the dark days in the fall of 1914 when the war in Europe upset financial balances all over the world.

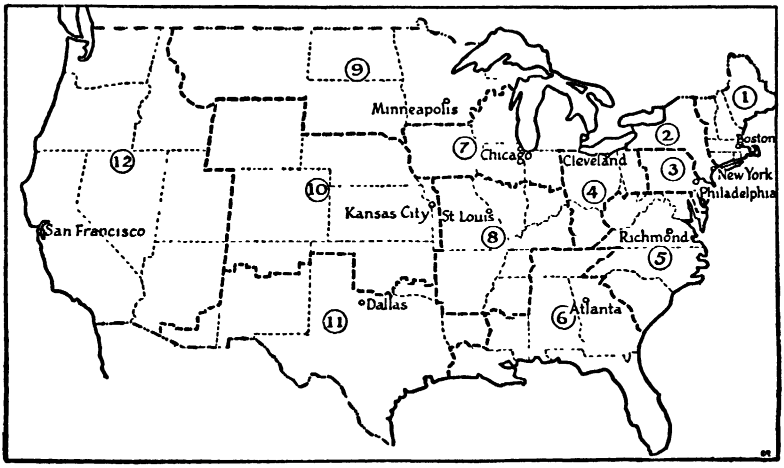
The Aldrich-Vreeland Act also authorized the appointment of a National Monetary Commission composed of eighteen members of Congress. The Commission, with Senator Aldrich as chairman, was charged with the duty of investigating the currency and banking systems of the United States and other countries and of suggesting improvements in the existing laws. Experts were appointed to aid in the work and members of the Commission visited Europe to get first-hand information about the systems of foreign countries.

Early in 1912, the Commission submitted its report to Congress and also the text of a proposed law designed to remedy defects pointed out in the report. Recommendations were made for the establishment of a National Reserve Association, chartered by the federal government to act as its fiscal agent and also to deal with other banks. To avoid objections to the establishment of a central institution which might dominate local banks it was suggested that district associations of banks be formed, each with a certain degree of independence. It was also proposed ultimately to give the National Reserve Association the sole power of note issue. The Commission published its report in thirty-eight volumes, a most comprehensive banking library. No definite action was taken by Congress in the direction of improving the banking and monetary systems of the country until Woodrow Wilson became President.

The Federal Reserve System

President Wilson appeared personally before Congress in 1913 and asked for a measure which would embody the following principles: (1) an elastic currency based on the commercial assets of the country rather than on the bonded indebtedness; (2) a reduction in the number of cities holding bank reserves; (3) strict public control of the banking system; (4) a system that provided for decentralization rather than one headed by a central bank. A bill was drafted by Senator Owen and Carter Glass, chairmen of the Senate and House Committees on Banking and Currency, together with Secretary of the Treasury William G. McAdoo and the President. It represented, however, the ideas of many persons who had been concerned about the financial system of the country for many years. The measure was introduced when the progressive movement was at its height and must be evaluated on the background of enlightened public opinion. In Congress there was general agreement regarding the first two points made by the President, but much opposition to strict government control and to a decentralized system. For six months Congress wrangled over the measure, while important bankers and western farmers severely criticized it. The bill was passed toward the close of 1913 and went into operation late the next year.

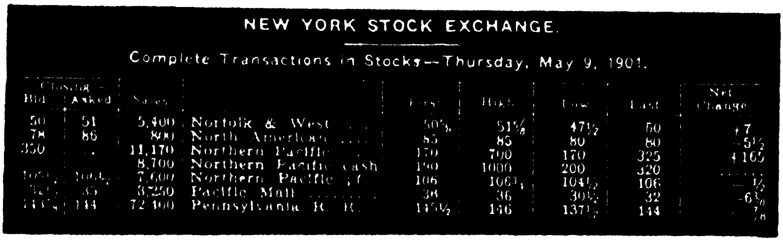
The Federal Reserve Act provided for a new decentralized system, based on regional lines. Federal Reserve banks were to be created in certain districts, the number eventually being fixed at twelve. Banks were established in Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas and San Francisco. The law provided that each national bank in the country should invest 6 per cent of its capital and surplus in the stock of the Federal Reserve bank of its district, on which dividends of 6 per cent were to be paid; state banks and trust companies were invited, but not required, to join the system. Each reserve bank was to be a depository only for funds of its member banks and in the discretion of the Secretary of the Treasury, for government funds. The member banks were given the right to elect six of the nine directors of the Federal Reserve bank in their district. The Federal Reserve Board, which consisted of the Secretary of the Treasury, and the Comptroller of the Currency, *ex officio,* together with five others appointed by the President, supervised the system and was given wide powers to control the general credit situation and to insure the sound operation of the Federal Reserve banks.



FEDERAL RESERVE DISTRICTS

The law provided a means of securing greater currency elasticity through a new type of bank note — Federal Reserve notes — secured by discounted paper and designed to expand and contract with the needs of business. A member bank could secure Federal reserve notes in any amount by rediscounting with its Federal Reserve bank the commercial paper of businessmen and others to whom it had made loans. In times when large amounts of currency were needed a member bank, therefore, could expand its issues to any amount provided it maintained a 40 per cent gold reserve (changed to gold certificates or other lawful money in 1933) with its Federal Reserve bank. Further issues were permitted in excess of this reserve in times of need but were penalized by a graduated tax when the emergency was over. The Federal Reserve notes were planned to replace the inelastic national bank notes, which were dependent on government bonds. Both national bank notes and federal reserve notes were later retired.

The new system was established on the basis of the four points set forth by President Wilson: elasticity of the currency, mobilization of reserves, public control of the banking system, and decentralization. While there was bitter resistance at first from bankers who opposed regimentation of their operations and although the system through amendments and administrative policy moved away somewhat from the democratic ideals of its sponsors, it provided for a superior banking and currency system. It proved its worth in a convincing manner during the First World War and in the years that followed.



NEW YORK STOCK EXCHANGE.

Complete Transactions in Stocks—Thursday, May 9, 1901.

Closing — Bid	Asked	Sales		First	High	Low	Last	Net Change
50	51	5,400	Norfolk & West	50⅝	51⅝	47½	50	+7
78	86	800	North American	85	85	80	80	−5½
350	..	11,170	Northern Pacific ...	170	700	170	325	+165
		8,700	Northern Pacific cash	190	1000	200	320	......
[illegible]	106½	7,600	Northern Pacific pf ..	106	106¾	104½	106	— ½
[illegible]	35	8,250	Pacific Mail	38	36	30½	32	−6⅜
[illegible]	144	72,400	Pennsylvania R. R.	145½	146	137½	144	— ⅞

PART OF *The New York Times* FINANCIAL PAGE OF MAY 10, 1901, SHOWING NORTHERN PACIFIC AT $1000 A SHARE

CHAPTER XXIV

Imperialistic Ventures

The Approach to Imperialism

Imperialism — the policy and practice of nations to extend their control, influence and dominion into various parts of the world — was not new in the nineteenth century. From the age of discovery, a succession of empires arose beginning with the Portuguese, Spanish and Dutch and culminating in the triumph of England over France in the eighteenth century. Such imperialistic enterprises included not only the acquisition and settlement of new territory but the building up of commerce and trade in colonial possessions, strengthened by mercantile restrictions against other nations. They centered in the struggle for markets for raw materials and for finished goods, with a favorable balance of trade as an objective, although the attainment of political and economic power was the chief purpose.

The new imperialism which began about 1870 contained all the elements of the old, but also much more so far as its methods were concerned. It had its basis in an intense nationalism, which gave nations political unity, power, and ambition, together with a highly developed industrialism, which directed national energy into imperialistic channels. The fusion of nationalism and industrialism created a renewed imperialism which resulted in the division of the backward countries of Africa and Asia among the leading European nations. England, France, Germany and Italy sought control in different parts of the world through military conquest, agreements and treaties with native races, establishment of "spheres of influence" in various ways, setting up protectorates, annexation, and economic penetration, especially through investments. The ultimate purpose of the new imperialism, like that of the old, was political and economic power, but the struggle for markets and investments came to be viewed in a new light as countries became highly industrialized and machines produced increasingly more than a country could consume.

In the new imperialism, as in the old, could be found motives other than political and economic. From the beginning of European expansion, missionaries had blazed the trails for soldiers and merchants and there had been a sincere desire on the part of Europeans to convert the peoples of the world to Christianity. The argument that sparsely settled lands should absorb the surplus populations and products of Europe was also interwoven with the theory of imperialism. More closely connected with the new imperialism was the excuse of the "white man's burden"—the term used by Rudyard Kipling to denote the supposed duty of the white race to manage the affairs of backward peoples and to impose on them a new type of civilization. Regardless of purpose, during the last three decades of the nineteenth century, Great Britain added to her possessions 5,000,000 square miles of territory containing a population of 90,000,000; France added 3,500,000 square miles and 37,000,000 peoples; while Germany took 1,000,000 square miles with a population of 14,000,000. Other European nations, likewise, extended their control into distant regions.

The expansion of the territory of the United States in the nineteenth century might be viewed as containing elements of the earlier type of imperialism. To many, however, it was the process of taking possession of their natural heritage. But it was destructive of Indian culture and institutions, although the continent was very sparsely settled. By the middle of the nineteenth century, control of the continent had extended into the possessions of Spanish Americans as the Pacific was reached. In addition to the mid-century manifest destiny fever to extend the benefits of American institutions to other parts of the continent, elements of the old imperialism can be discerned in the forced expansion of trade and commerce as ports in China and Japan were opened up, as unsuccessful attempts were made to annex the Hawaiian Islands, and in the proposal made by Secretary of State Marcy and Senator Gwin of California to buy Alaska from Russia in 1856. The Civil War interfered with such expansionist motives. After the war, Alaska was bought for $7,200,000 because of the decline of the Russian American Company, Russia's disinclination to administer the region, and the inability to defend it. Attempts to expand into the West Indies through the purchase of St. Thomas and St. John in the Danish West Indies were defeated in Congress and President Grant's attempts to annex Santo Domingo met with no success. Thus until the latter part of the century, the United States was not an imperialistic nation in the modern sense of the term, and a policy of relative isolation was generally accepted. Active American expansion into world affairs came with the Spanish American War, which to some critics was a pretext for imperialistic expansion, especially the economic penetration of other regions of the world.

The Spanish American War

The causes of the Spanish American war were closely related to conditions on the island of Cuba. At the beginning of the nineteenth century, during the Napoleonic Wars and in the years that immediately followed, the Spanish colonies in Central and South America revolted under the leadership of Miranda, San Martín, Bolivar, and others and set up independent republics. Spain lost her great empire in the New World and only Cuba, the "ever-faithful," and Puerto Rico, in the West Indies, remained as sad memories of the departed glories of Castile. The firm loyalty of Cuba to Spain was due to the fact that many Spanish officials and refugees from Central and South America had fled there during the days of bloody revolution. This loyal and conservative element, for a time at least, controlled Cuba and kept the miserable lower classes aligned with Spain.

By the middle of the nineteenth century, many groups in Cuba advocated separation and some favored annexation to the United States, which became a center for much of their propaganda. This is evidenced in the abortive filibustering attempts of Narcisco Lopez, the Venezuelan expatriate and others. All these attempts failed.

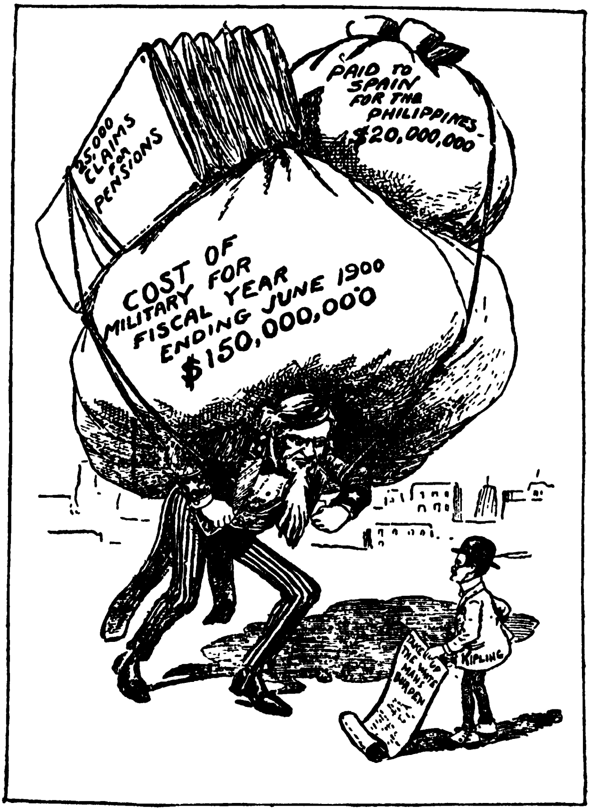
The strategic position of Cuba in relation to the United States was recognized by statesmen from Jefferson on, especially before the railroads were built to the West, for western commerce at first developed largely by way of the Mississippi and the Gulf of Mexico. Therefore many Americans advocated the purchase of Cuba. Suggestions for its purchase, however, continued after the railroads were in operation. President Polk's attempt to buy the island in 1848 for $100,000,000 brought a retort from the Spanish government that it would sooner see it sunk in the Atlantic Ocean than sold to the United States. A few unimportant filibustering expeditions followed. While the slavery interests in the South during the decade prior to the Civil War were anxious to secure Cuba in order to extend slave territory, the abolition of slavery removed one of the sources of the annexationist movement, but the desire for Cuba was not entirely ended.

By this time, the Cuban masses became restless. A revolution flared up in 1868 and a war continued for ten years. It resulted from the failure of the Spanish government to carry out fiscal and political reforms in Cuba and Puerto Rico. Failure to heed the demands for the abolition of slavery together with increased taxation marked a turning point in the relations between Cuba and Spain. The fighting dragged out until 1878, when an agreement was reached which provided pardon for the revolutionists, freedom for the slaves, forgetfulness of past animosities, and partial autonomy. But bribery and corruption was continued by the Spanish officials on the island; taxation increased until by 1895 the public debt of Cuba amounted to $283 per capita, larger proportionately than the debt of any European state; the promised autonomy was not forthcoming; and a relatively few rich Spanish and Cuban merchants controlled the business and political life of the island. It was not strange, therefore, that another revolution should break out in 1895.

American attention was focussed on Cuba because of the disorders, the destruction of property, and the loss of life there. The ruthless attempts of the Spanish authorities to stamp out the rebellion, especially the policy of herding non-combatants into concentration camps where large numbers died from lack of food and disease brought severe condemnation from Americans. The United States government was confronted with the task of putting down many filibustering expeditions and millions of dollars were spent for that purpose. The Cuban Junta with headquarters in New York for almost a generation had done its work well in favor of Cuban independence and had raised much money for the struggle. The revolution also affected American investments in Cuba (estimated at about $50,000,000 at this time), for sugar and tobacco plantations were destroyed, and trade between the United States and Cuba, which had received a severe blow by the tariff act of 1894, was reduced still more. While a number of commercial and shipping firms along the Atlantic and Gulf coasts desired intervention to end their problems and appeals were made to Congress, the business interests of the country in general were opposed to any interference in Cuba. President Cleveland resisted all pressure for intervention, although in his addresses to Congress he warned the Spanish government that order would have to be restored on the island.

Yellow journals, led by the competing *New York Journal* of Hearst and Pulitzer's *New York World,* kept Cuban events before the American public in a most sensational manner and a part of the religious press preached the sacred duty of American intervention to end Spanish misrule. Humanitarian interest and sentimental sympathy with the Cubans in their struggle for independence and general indignation at Spanish methods of warfare were inflamed by the sensational picture presented by the jingo press.

Not long after President McKinley took office, a liberal ministry assumed control in Spain. Plans were made by it to change objectionable military methods and the way was opened to grant the Cubans limited autonomy. But early in 1898, the De Lôme letter from the Spanish minister in Washington to a friend in Havana, which was intercepted by insurgents, given to American reporters, and published in the newspapers, stirred up American opinion to white heat, for the minister had written that the President was "weak and a bidder for the admiration of the crowd, besides being a would-be politician who tries to leave a door open behind himself while keeping on good terms with the jingoes of his party." It was the sinking of the *Maine* in Havana harbor, with its tragic loss of life, however, that brought a new outburst of anti-Spanish feeling and led directly to war. Investigations made by Spain and the United States brought no agreement regarding the real cause for the explosions which resulted in the destruction of the battleship. Many Congressmen now insisted on war and early in April, President McKinley delivered his war message, although the day before, Woodford, the American minister at Madrid had cabled him, asking patience on the ground that the Spanish ministry was doing everything possible to satisfy the demands of


25,000 CLAIMS FOR PENSIONS
PAID TO SPAIN FOR THE PHILIPPINES - $20,000,000
COST OF MILITARY FOR FISCAL YEAR ENDING JUNE 1900 $150,000,000
TAKE UP THE WHITE MANS BURDEN
KIPLING

From the "Denver Post"

THE WHITE MAN'S BURDEN

the United States. But American patience was at an end with Spain's persistent policy of vacillation and Congress declared war.

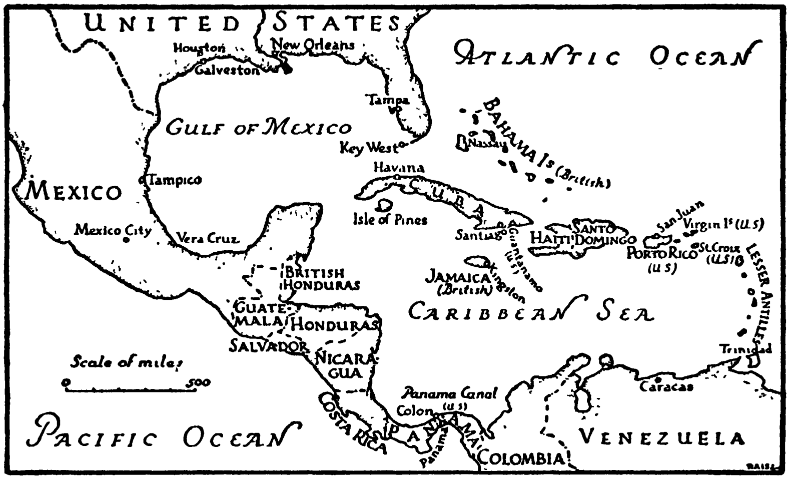
The Spanish American war was short. In spite of the unpreparedness of the army, inefficiency in sending supplies to Cuba — the chief scene of land warfare, and bungling by army and navy officials, the Americans were completely victorious. The destruction of the Spanish fleet at the Philippines by Dewey, the total loss of a second fleet in Santiago Bay, and the land victories in southern Cuba in which Theodore Roosevelt and his Rough Riders took a prominent part forced the Spanish government to sue for peace. About four months after the declaration of war a peace protocol was signed. Exactly one year after McKinley's war message, ratifications of the permanent peace treaty were exchanged in Washington. The provisions included the relinquishment by Spain of Cuba, Puerto Rico, and Guam. Spain also ceded the Philippines to the United States. In the same article, the United States agreed to pay Spain $20,000,000, although this was not stated as a purchase price for the islands. Spanish ships and merchandise for ten years after the ratification of the treaty were to be admitted to the Philippines on the same terms as ships and merchandise from the United States.

The United States and Cuba

In the resolutions that declared war against Spain, in the protocol which brought hostilities to an end, and in the final treaty of peace, the United States set forth its purpose regarding Cuba. It was to pacify the island and secure freedom and independence for its people. But before withdrawing the American troops from the island it was necessary for the United States to see that a permanent government was set up which would preserve peace and order.

At the close of the war, American control of the island began under the most depressing economic conditions. In many places farm houses, sugar mills, plantations, crops, domestic animals, buildings, bridges and roads had been destroyed. Agriculture had suffered severely. Havana, although not ravaged by the war, had suffered a decline of business because of the disorders and the demoralization of agriculture. Many who had left the concentration camps remained in the cities to live by public or private charity. Disease was widespread and bandits roamed the countryside. Political confusion was added to economic and social disturbances when the Spanish officials left their positions and neglected their duties as the power of Spain ended. It required a high degree of statesmanship and philanthropy on the part of the United States to restore the normal activities of the island.

Under American military occupation, Major-General John R. Brooke, who was succeeded by Major-General Leonard Wood, had complete charge. Starving people were fed, medical supplies were provided for the sick, and every attempt was made to put men back to work. In order to disarm Cuban soldiers and to aid them to return to peaceful vocations, each was given $75 upon the surrender of his firearms, the $3,000,000 for the purpose being obtained from the unexpended balance of the war appropriation. Laborers were employed on public works and $6,000,000 were spent for this purpose during the first year following the war. Although the powers of the military were absolute, every attempt was made to put municipal laws and ordinances into effect, thus giving local control to the people. Elections were arranged, plans were carried out to make local governments financially independent, laws were codified, the police system was reorganized, a school system was established, and much work was done to improve sanitation in order to combat disease.



THE WEST INDIES AND THE CARIBBEAN

In the summer of 1900, President McKinley, Secretary of War Root, and Governor-General Wood met and decided that the island had been pacified and that it was time to withdraw. The next year a duly elected Cuban convention met in Havana to draw up a constitution for a new Cuba. Its delegates were instructed to consider several suggested provisions relating to the future relations between Cuba and the United States. The constitution, modeled upon that of the United States, was completed, but only one of the proposed clauses was included. It related to commercial reciprocity between the two countries.

The others were ignored. As a result, the administration in Washington refused to approve the constitution and military occupation continued. In the Platt Amendment, which was added to an army appropriation bill, Congress set forth these provisions and added several new ones.

The Cubans were required to include all of them in the new constitution and also to embody them in a treaty between the two countries. The Platt Amendment of 1901 provided that: (1) Cuba should never make a treaty with any foreign power that might impair its independence, nor grant to any foreign nation lands for colonization or naval purposes; (2) Cuba should not contract any public debts which could not be repaid from its ordinary revenues; (3) the Cuban government should grant to the United States the right to intervene at any time to preserve Cuban independence and to protect life, property and liberty; (4) all acts of the military authorities during occupation were to be ratified, validated, and maintained; (5) Cuba should sell or lease to the United States lands for coaling or naval stations in order to protect the independence of Cuba, protect its people, and to defend American coasts from foreign attack. In spite of much protest and opposition the terms were finally accepted. Military occupation ended and control of the island was given to its people in 1902.

The disorders which attended the Cuban election of 1906, led to a second military occupation which lasted three years. President Theodore Roosevelt made it clear that the United States had no designs on Cuba, but that the island could not continue independent if revolutions became a habit. Riots and disorders in 1917 led to sending marines to Cuba to help the regularly constituted government maintain order. The policy of the United States in this respect saved Cuba from a career of turbulence. The Platt Amendment, however, caused continued resentment among the Cuban people who strongly objected to foreign interference. By the treaty of 1934 the Platt Amendment was abrogated. The Roosevelt-Hull "good neighbor" policy and the violent strife in Cuba in 1933 and 1934 largely account for abdicating responsibility for Cuban affairs.

As an American protectorate, Cuba prospered. Economic ties grew closer. By a treaty of 1903, a reduction of 20 per cent was made on all imports into the United States from Cuba in consideration for a reduction made by Cuba in its duties on American machinery, iron and steel manufactures, textile goods, foodstuffs, cattle, rice, and other products. Soon after Cuba was released from the terms of the Platt Amendment in 1934 a reciprocal agreement was made between the two countries under the terms of the Trade Agreements Act of

June, 1934, which authorizes the President to make such pacts. The greatest part of Cuban imports and exports have been with the United States. The latter include chiefly sugar, tobacco, cigars, hides, iron, copper, asphalt, and valuable woods.

American investments in Cuba have been large. In 1898, they amounted to $50,000,000. In a generation they increased to $1,500,000,000. Nine-tenths of all the foreign capital invested in Cuba belongs to Americans. One-half of this represents sugar plantations and refineries. The remainder includes real estate, public utilities, railroads, tobacco manufactures, mining, commercial establishments and banking. These large investments are controlled chiefly by a relatively few banking houses. While American economic penetration has brought a measure of prosperity and stability to the island, it has made the country economically dependent upon the United States; it has largely destroyed the economic freedom of the Cubans; and it has made agricultural laborers out of a large number of farmers, who now work for large-scale interests.

Puerto Rico

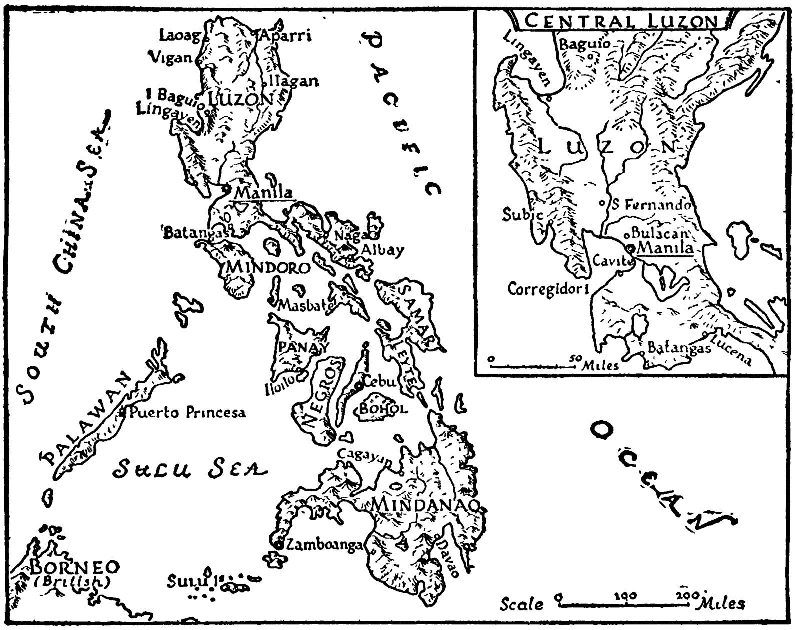
Problems regarding the organization of Puerto Rico and the Hawaiian Islands were somewhat different from those of Cuba, for these islands were to be American territory. The military government in Puerto Rico put down looting and ended acts of violence which followed the collapse of Spanish control. As in Cuba, every attempt was made to establish local self-government and a system of public works was inaugurated. Plans were worked out for political reforms, for reorganizing the school system and for relief to those who needed it.

The problem of establishing civil government was achieved under the Foraker Act of 1900, which declared the island to be "unorganized territory" and set up a form of government, similar in many respects to the early territorial governments of the United States. The inhabitants, however, were not granted American citizenship by this law. In certain "insular cases," the relationship of outlying possessions and dependencies with the United States was determined, which helped to shape a colonial policy. The first problem in this connection to be brought to the United States Supreme Court was whether Puerto Rico after its annexation to the United States should be considered foreign territory to the extent that American tariff duties be imposed upon goods imported from the island into the United States (De Lima *vs.* Bidwell, 1901). The Court held that although Puerto Rico had not become an integral part of the United States, it had ceased to be foreign territory and therefore duties should be imposed by congressional action. In the Foraker Act of 1900 which established civil government on the island, Congress made provision for levying 15 per cent of the Dingley tariff on goods from Puerto Rico. In the case of Downes *vs.* Bidwell (1901) the validity of the legislation was tested on the basis that the Constitution requires that "all duties, imports, and excises shall be uniform throughout the United States." The Court decided that Puerto Rico had not become a part of the United States within the meaning of this provision. In 1902, Congress provided for complete free trade with Puerto Rico. In several of the insular cases the Court held that outlying territories and possessions were of two kinds: incorporated, such as Hawaii and Alaska, and unincorporated, such as Puerto Rico and the Philippines. In legislating for incorporated territories, Congress is bound by all provisions of the Constitution, but in legislating for unincorporated territories Congress is bound only by certain fundamental provisions such as the guarantee against deprivation of life, liberty and property without due process of law.

Dissatisfaction with the general relations between Puerto Rico and the United States on the part of many living on the island led to the passage of the Jones Act in 1917, which granted full American citizenship to the natives, together with a larger measure of self government. The majority party, the Unionists, however, desired independence. Dissatisfaction continued in spite of advances made under American rule in sanitation, education, public improvements, commerce and trade, and in spite of the fact that Puerto Rico enjoyed such privileges as exemption from federal income and inheritance taxes. Economic conditions on the island, however, have been bad and have been aggravated by overpopulation, by the plight of landless peasants enervated by hookworm and other diseases, by the dependence on sugar and a few other crops, and by the concentration of lands in the hands of a relatively few absentee landowners, mostly American corporations. As a result of discontent one group of leaders has advocated eventual independence; another demands admission as a state in the Union. In recent years a radical Nationalist party has resorted to violence in its demand for immediate independence. In order to improve depressed economic conditions, the federal government, in 1935, inaugurated a program of economic rehabilitation under the Puerto Rico Reconstruction Administration.

The Philippine Islands

The Philippine Islands, discovered by Magellan in 1521 and occupied by Spain after 1565, became a possession of the United States in 1898 as a result of the Spanish American War. At that time the population of the islands was about 7,000,000 consisting of many different ethnic groups speaking almost a hundred different languages or dialects. Indian, Malayans, Chinese, Japanese and Arabs had settled there long before the coming of the Spanish. In 1898, the people varied from highly educated Spanish Catholics to the wildest of primitive races, some of them head hunters and cannibals. Spanish control had been largely in the hands of the Catholic friars for centuries and centered in Manila on the island of Luzon, the largest of the 7,083 islands that make up the Philippine archipelago. Many of the islands, being nothing more than small rocky islets, have never been inhabited.



THE PHILIPPINES (INSET) MANILA BAY

Spanish occupation resulted in the establishment of Christianity among the principal Filipino tribes on a few of the most important islands. The rising tide of Mohammedanism, which had begun centuries before Spain established authority there, was now restricted to Mindanao, the Sulu Archipelago, and adjacent regions. In the nineteenth century, under the direction of the Friars on Luzon, well-to-do Filipinos began to send their children to European countries to complete their education. Some imbibed the liberal ideals of Europe and a few were touched by the revolutionary ideas that were burning brightly about the middle of that century. In the decades that followed, as education broadened, Filipino secret societies built the framework for the beginning of a national movement which matured in the last part of the century. Anti-Spanish feeling increased. Dr. José Rizal bore a conspicuous part in the new movement and for it he was executed by the Spanish authorities in 1896. An insurrection at this time was put down by the Spanish authorities.

After the Spanish-American war, American occupation resulted in the Philippine Insurrection, as natives, disappointed in not securing immediate independence proclaimed a republic and elected Emilo Aguinaldo its president. American blood and money were spent in suppressing the uprising, which came to an end after the spectacular capture of Aguinaldo, who took the oath of allegiance to the United States and encouraged his followers to do the same. By 1902, other recalcitrant leaders followed Aguinaldo's example and peace was restored. In the meantime, a Philippine Commission under William H. Taft was appointed in 1900 to assist the military governor, especially in the capacity of a legislative body. The next year civil government was established and Taft became governor-general. In 1902, he arranged for the purchase by the United States, at a cost of about $7,000,000, of the lands formerly owned by the Catholic friars, who had been forced to flee from the islands. In 1907, the Commission became the upper house of legislature as the first Philippine Assembly was opened. In 1916, Congress passed the Jones Act which encouraged the Filipinos to look for early independence. It provided for an extension of powers to the natives, giving them a large measure of control in the government, but subject to the President of the United States and Congress. In the years that followed, agitation for independence increased, commissions were appointed to investigate, and reports were made, but no action was taken.

By the early 1930's American business men were disappointed in their expectation of the economic exploitation of the Philippines, for American investments there, except for government securities, were relatively small, and increased trade between the Philippines and China, which many expected to flourish, had not materialized. In the Senate, leading proponents of Philippine independence were the senators from Louisiana and Utah, leading cane and beet sugar states, which for years had faced competition with duty-free Philippine sugar. At the same time, many naval experts pointed out that the islands would be a liability rather than an asset in case of a war with Japan. Largely as a result of these factors a measure was passed in 1933, which provided for independence, ten years after the inauguration of a government. On account of a provision restricting immigration to the United States, the abrogation of free trade enjoyed since 1909, and other clauses, the Philippine legislature rejected the offer. The Tydings-McDuffie Act of 1934 eliminated certain objections of this law and was accepted by the Philippine legislature on the thirty-sixth anniversary of Dewey's victory at Manila Bay. It provided for the recognition of Philippine independence after a ten-year transitional period. Restrictions on Filipino immigration to the United States, however, were included and also the end of free trade. Army bases were to be ceded to the Philippines but the question of naval bases was to be negotiated at a later date. Manuel Quezon was elected first president of the Philippine Commonwealth in 1935 and the people looked forward to independence in 1946. In 1942, the Japanese seized control of the islands and although the government had fled, the United States proclaimed the Philippines an independent nation on Flag Day, 1942.

During American occupation of the Philippines, progress was made along commercial, agricultural, sanitary, and material lines generally, as well as in education and the rise of free democratic institutions. Large sums of money were spent by the United States for the betterment of the people. Agriculture was the most important industry. The chief crops were rice, hemp, manguey, sugar cane, tobacco, and cocoanut. Coffee raising became unprofitable on account of destructive insects. Land laws restricted the development of large estates and the Filipinos owned almost all the land under cultivation. The most important manufacturing industry was that of cigars and cigarettes. Large modern cocoanut oil factories and central sugar mills of modern type were built in the chief sugar producing sections. The islands possess large mineral resources, but these have not been greatly exploited.

The United States supplied about three-fifths of the imports of the island including machinery, tools, automobiles, flour, oil, coal and cotton goods. On the other hand it took about three-fourths of the exports, including practically all the sugar exported and most of the cocoanut oil, desiccated cocoanut, copra, lumber, and cigars. By the act of 1902, Philippine products entered the United States at a reduction of 25 per cent of the rate of the Dingley tariff. The tariff of 1909 provided free trade except that a limit was placed on the amount of sugar and tobacco that could enter the United States duty free; the tariff of 1913 provided for complete free trade. Imports from foreign countries were subject to a tariff of 20 per cent. This benefited both the United States and the Philippines, the balance of trade, however, favoring the latter. The Second World War completely disrupted the life of the people on the chief islands of the Philippine archipelago.

The Hawaiian Islands

Although the Hawaiian Islands, the "Paradise of the Pacific," were not annexed to the United States until 1898, relations between the two countries go much further back. The islands had been visited by early Spaniards, but they were really discovered by the ill-fated English explorer, Captain James Cook, at the time of the American Revolution and were named the Sandwich Islands after an English noble. Before the end of that century, Yankees who traded in furs with the Pacific Northwest and China called at Honolulu and added another aspect to their Pacific activities in a developing trade in sandalwood. Early observers pointed out that the Hawaiian natives, who were of Polynesian origin, lived in a land of volcanic peaks, rugged valleys, lava plains, desert tracts, fertile lands, semi-tropical vegetation, and luxuriant plant life, the varied background presenting a wealth of scenery. The Hawaiians lived very simply by agriculture and fishing, and possessed neither metals, pottery nor beasts of burden. Their implements were of stone, wood, or bone and they had no looms or cloth; they used a fibrous bark instead of textiles.

Before 1820, American whalers began to make Honolulu a port for repairing their vessels and the number soon increased. In 1820, Boston missionaries reached the islands and during the years that followed American influence was promoted by them. They found that their chief difficulties came not from the natives but from resident Europeans and Americans who exploited the islands and their people. Increased American economic interest followed in the wake of the missionaries. By the middle of the century, Honolulu with its American missionaries, Yankee whalemen, and growing trade with the United States was seemingly an American outpost, although by this time European influence — including English and French — was also increasing.

The settlement of Oregon and the acquisition of California increased American interest in the Pacific, especially in the Hawaiian Islands. From 1848 to 1855, urged by American sugar interests, the native government appealed to the United States for a reciprocal treaty, but the Senate, responding to the sugar interests of Louisiana, rejected the idea. About the same time the question of annexation was raised. Several times prior to 1850 Hawaiian rulers had offered — either voluntarily or under pressure — their sovereignty to Great Britain, but without result. In 1850, the French intervened in Hawaiian affairs. The United States government objected and Daniel Webster, Secretary of State, asserted that he would not see the islands taken over by any of the great European commercial powers. The Hawaiian ruler sought unsuccessfully to place his kingdom under American protection. A treaty of annexation was also negotiated between the two countries but was not submitted to the Senate. By 1875, Americans owned 75 per cent of the Hawaiian sugar plantations, the investments amounting to $25,000,000. In this year the Hawaiian king visited the United States and his commissioners signed a reciprocal treaty which the Senate accepted. By its terms unrefined sugar and other Hawaiian products were admitted to the United States free of duty and American manufactured articles could enter Hawaii on the same terms. It provided further that no lands, harbors or ports should be granted other nations, nor should other countries be permitted free trade. From this time on the sugar industry under the impetus of a ready American market expanded considerably. In 1887, the Hawaiian government granted the United States the exclusive use of Pearl Harbor. This step was taken because of the importance of the harbor for the defense of the islands, its value to the United States in wartime, and American fears that Hawaii might turn to Asia since Chinese immigration to the islands was increasing.

The year 1887 also marked a new liberal government in Hawaii, the king Kalakaua, under American influence, giving suffrage to the whites and recognizing cabinet responsibility. After his death, his successor, Queen Liliuokalani, attempted to restore autocratic rule and to eliminate white control. As a result, early in 1893, influential Americans, with the help of the United States Minister John L. Stevens and the support of 160 Marines, wrought a revolution. The queen was deposed; a provisional government was organized with an American, Sanford B. Dole as its head; and steps were taken for annexation to the United States. While President Benjamin Harrison signed the treaty in the last days of his administration and submitted it to the Senate, it was not ratified when his term ended. President Grover Cleveland, who followed Harrison, withdrew the document from the Senate and ordered an investigation which revealed a conspiracy between the American planters and United States Minister Stevens. He ordered the restoration of the queen, but the provisional government refused and set up the Republic of Hawaii, which was soon recognized by foreign governments, including the United States.

As a new administration under President William McKinley came into power in 1897 interest in annexing Hawaii again burst forth. However, a majority could not be obtained for a new treaty of annexation in the Senate. With the outbreak of the Spanish American War and Dewey's victory in Manila Bay, the strategic importance of the Hawaiian Islands was realized. President Dole of the Republic of Hawaii offered the use of the harbors to the United States and proposed a treaty of alliance if annexation could not be achieved. The value of Hawaiian harbors during the war together with the fear of Japanese designs upon the islands strengthened sentiment for annexation in Washington. Instead of waiting to annex the islands by treaty, which would have required a two-thirds majority vote in the Senate, a joint-resolution of a simple majority by both houses resulted in annexation. Sovereignty was soon transferred to the United States (1898). Japan protested vigorously while the treaty was before the Senate, which probably helped to bring about annexation. But the American government assured that country that the rights of Japanese living there would in no way be affected by the change.

By the Organic Act of 1900 Congress made Hawaii a formal territory of the United States and conferred American citizenship upon its people. As in other outlying possessions much economic, social and cultural progress followed. Trade is largely with the United States. The principal crop is cane sugar and second in importance is the production of pineapples. Other semi-tropical crops and foodstuffs of all kinds are grown. Coffee is produced especially on Hawaii Island; rice is cultivated on the lowest flats mostly by Chinese; and livestock flourish on upland pastures. In more recent years, until the treacherous Japanese attack on Pearl Harbor, an added income was obtained from tourists, travelers, and visitors. The islands furnish valuable naval bases for a strong American military and naval outpost, which have proved vital in the Second World War. The inhabitants favor closer relations with the United States and have voted for statehood. The chief problem under American control has been racial. The census of 1900 showed the total population to be 154,001. The Hawaiians and part-Hawaiians comprised 24 per cent of this total; Caucasians, chiefly Portuguese, 17 per cent, Chinese and Japanese, 56 per cent; and others 3 per cent. In 1942, the Japanese comprised one-third of the total and the Oriental element altogether made up two-thirds of the total. The problem of the assimilation of the polyglot mixture on the islands is a serious one. The chief difficulty lies in the large numbers of Japanese.

Samoa and Other Pacific Islands

By the end of the nineteenth century, possessions had been secured in other parts of the Pacific. American interest was first aroused in the Samoan islands, which lie in the southwest Pacific, when Charles Wilkes, an officer in the United States Navy, visited them in 1839.

Other Americans reached the islands, but they did not come into prominence until years later as a result of the pressure of American merchants and missionaries, an awakening to their naval importance, and the rivalry of European powers over them. Although during President Grant's administration, Commander Richard W. Meade was sent to secure the excellent harbor of Pago Pago as a naval base and coaling station for the United States Navy, a treaty was not ratified by the Senate until 1878. It ceded Pago Pago to the United States and granted certain commercial and extraterritorial privileges. In 1877 and 1878, the American consul placed Samoa under American protection to forestall the British, but the American government disavowed his proclamations. The ambitions of Great Britain and Germany led to serious trade rivalries, diplomatic intrigue with native rulers, quarrels among different factions on the islands, and international friction.

In 1889, it became evident that Germany was planning to seize the islands. A naval battle might have resulted as American, British and German war vessels gathered in the harbor of Apia. But a hurricane so damaged the ships that conflict was impossible. An international conference followed and a tripartite agreement was made — the Berlin Act of 1889 — which guaranteed the neutrality and independence of Samoa through what virtually amounted to a three-power protectorate. Problems in administration and continued difficulties led to a proposal by Germany for a division of the islands. American interest in the Pacific at the end of the century also made a new arrangement inevitable. A convention was agreed upon by the three nations in 1899. England renounced its Samoan claims in return for recognition of its occupation of other south Pacific islands. The United States received the island of Tutuila with its harbor of Pago Pago. Germany obtained the islands of Upolu and Savaii. As a result of the First World War, German interests in Samoa were transferred under a mandate to New Zealand. American Samoa has remained the outpost of the United States in the southwest Pacific and is of prime naval importance because of its location between the Pacific coast of the United States as well as Panama and Australia.

Many small islands were occupied by the United States during the last part of the nineteenth century. Under the Guano Islands Act of 1856, Americans were authorized to take peaceable possession of islands or rocks that did not belong to other nations on which guano deposits — used for fertilization — were found. Many small islands came under American control, but most were abandoned after the deposits were removed. Guano was obtained from Baker and Howland Islands by Americans and Britishers. They were leased under British protection to the Pacific Islands Company, but were later abandoned. In 1935, the United States revived its claim and extended sovereignty over them. An executive order placed them under the Division of Territories and Island Possessions. In 1867, the Midway Islands were occupied and the Aleutian Islands purchased in connection with Alaska. By the end of the nineteenth century many other small islands came under the jurisdiction of the United States, which aided in expanding American influence and which were to be of value as cable, radio, and coaling stations.

"The American Peril"

The remarkable economic expansion which the United States had attained by the end of the nineteenth century brought expressions of fear of the new imperial power from many Europeans. Territorially, industrially, and commercially, the United States had reached a position that made it one of the great nations of the world. Just before and during the Spanish American war, European writers, especially British, French and German, approved and disapproved of America's stand against Spain. One of the most sarcastic critics of American policy during that period stated:

> Among the caricatures published by the satirical journals . . . there is a particularly characteristic drawing: it is the map of the universe where Brother Jonathan occupies the surface of the two America's and assigns to himself fantastic limits: to the north, the Aurora Borealis; to the South, Tierra del Fuego; to the west, the Valley of the Last Judgment; . . . as far as the east, it does not appear on the map because the east is Europe and Europe, decayed territory, no longer counts.[1]

After the war, an increasing number of Europeans denounced American political, commercial and territorial ambitions. The term, "American peril," however, was more used on the Continent than in the British Isles, but apprehension was discernible in the writings of English journalists and economists.

European criticism of the rising power of the United States was based largely on industrial, commercial and financial rivalry. During the last decades of the nineteenth century, America began to force its goods into competition with European, and especially to expand its markets in the rising Latin American countries. By 1898, the United States passed England for the first time in the volume of all exports and about the same time passed the United Kingdom as an exporter to Germany. European writers began to express much alarm

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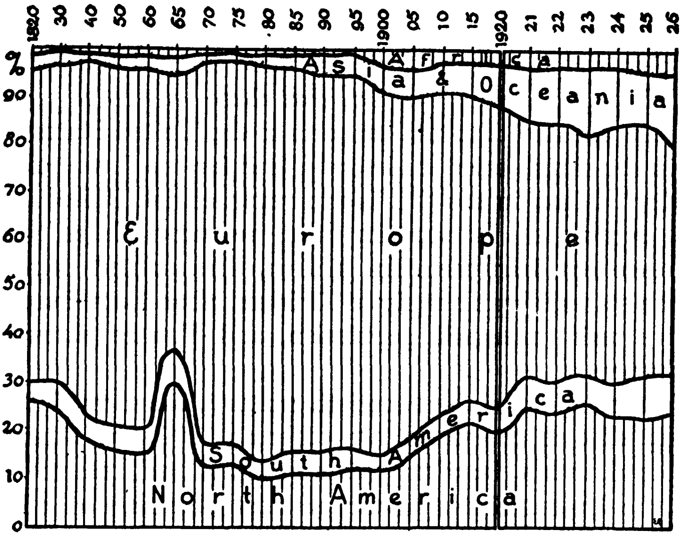
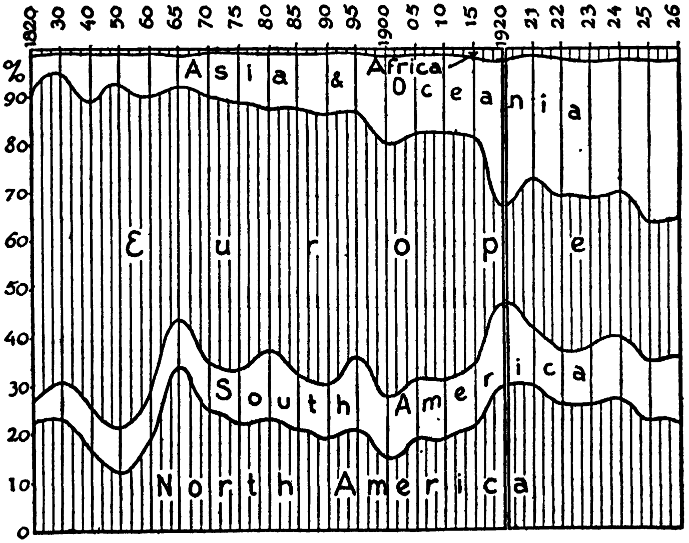
[1] Henri Alexis Moulin, *L'Expansion des États-Unis et la Doctrine de Monroe*, p. 3.



Percentage of Exports of the United States by Continents, 1820–1926



Percentage of Imports of the United States by Continents, 1820–1926 after examining the statistics of American imports and exports. They called attention to the fact that American exports had increased in a most remarkable manner and were more than $1,000,000,000 annually. This together with the fact that three-fourths of these exports went to Europe and that total imports to the United States rose much slower in the same period made them fear for the future of European prosperity.[2] Many in the Old World regarded the United States as a menace because of its superior farm resources, huge mineral deposits, excellent transportation system, unrestricted commerce between the states, cheap supply of limitless labor from Europe, highly protective tariff, energetic population, and Yankee shrewdness and aggressiveness.

By the beginning of the twentieth century, American influence was spreading all over the world. As early as 1902, the English writer, W. T. Stead, in his *Americanization of the World,* referred to expansion of the United States as the greatest phenomenon of the time. Similar books were written in the same period. England was caught between two competitors — Germany and the United States — and was battling against the activities and influence of both. Since 1870, Germany had made tremendous economic gains. By 1914, it had risen from a collection of loosely-knit states to become the second greatest power in the world and in many ways surpassed both Britain and America. Its industries were great and were growing; its commerce was expanding; and its army was the greatest and its navy the second greatest on the globe. But American influence through commerce, invention, machinery, and investment as well as through dentistry, medicine, education, and literature was rapidly penetrating Europe and the rest of the world.

American Investments Abroad

The United States entered the international investment market in a most substantial way in the last decade of the nineteenth century. The gradual accumulation of capital largely due to the rapid expansion of manufacturing industries and business enterprise resulted in sending American capital abroad in various ways. This was done by establishing foreign branches of American industrial plants, financing foreign business, and purchasing foreign securities. The total amount of American investments abroad in 1897 amounted to $684,500,000. By 1914, this had increased to $3,513,800,000.

During the period, many foreign sales offices, agencies, warehouses, and storehouses were established. By 1911, the Standard Oil Corporation had sixteen subsidiaries in different parts of the world. By 1914, the United States Steel Corporation had 268 agencies in sixty countries, and the National Cash Register Co. was dispersing one-third of its output in foreign countries: American machinery, automobiles, meats, shoes, soaps and other commodities were penetrating the world. Branch factories were built abroad. By 1914, the largest American corporations had foreign factories and a total of almost $500,000,000 was invested, including $220,000,000 in Canada, $200,000,000 in Europe, and $60,000,000 in Latin America and the rest of the world. Investments in foreign railroads, largely in the Caribbean area, rose from $143,300,000 in 1897 to $255,100,000 in 1914. American capital also went into agricultural enterprises abroad — sugar plantations and mills in Cuba, Puerto Rico, Hawaii and the Philippines; the production of tropical fruit, coconuts, cacao, coffee, tea, spices, sisal, jute, hemp, rubber in various areas, as well as ranches and farms in Canada and Mexico. Direct investments in American controlled foreign ventures were also large. These included investments in oil, copper, aluminum, lead, nickel, tin, zinc, iron, nitrates and coal.

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[2] United States Treasury Department, *Annual Report: The Foreign Commerce and Navigation of the United States,* I (Washington, 1902), p. 97.

Americans held more than $1,000,000,000 in the securities of foreign governments and foreign-controlled corporations in 1914. Branch banking in foreign countries was restricted and exporters and investors had to depend upon British, French, German and Dutch banks and their branches. However, the Federal Reserve Act of 1913 and subsequent banking legislation provided for the establishment of foreign branches by national and state banks, which facilitated the expansion of American investments in foreign countries.

The United States as a World Power

By the last decade of the nineteenth century, the United States had made tremendous material progress. Within a century, it had expanded from the Atlantic to the Pacific and before the century ended it had possessions and dependencies overseas. Industrially and commercially it had made great advances within the period of a few decades. The political issue of empire versus republic which was waged during the first part of the twentieth century showed that ideas regarding imperialism varied considerably but it did not affect material progress. At the same time, the United States asserted itself in various ways as it took a part as never before in world affairs.

The Venezuela crisis of the 1890's was an outstanding example of the participation of the United States in world affairs, although it was concerned with the Monroe Doctrine and the Western Hemisphere. When Great Britain acquired the territory of British Guiana in 1814, no definite boundary was marked along its western side. From time to time negotiations between England and Venezuela failed to mark a line. The British made a survey in 1841, resulting in the Schomburgk line, which was bitterly protested by Venezuela. From 1876, the United States as a friend of both parties urged arbitration. In 1885–1886 the British government extended its claims many thousands of square miles west of the Schomburgk line in a region where gold had been found. The Venezuelan government protested and when Great Britain refused to arbitrate, it broke off diplomatic relations. The United States consistently attempted to bring about arbitration, but without result.

In 1895, Secretary of State Richard Olney, under President Cleveland, sent a note to Lord Salisbury, the British foreign minister, in which he analyzed the dispute, demanded arbitration, and pointed out the efficacy of the Monroe Doctrine, which he interpreted as being equivalent to a virtual protectorate over the western hemisphere. He stressed his belief that an extension of frontiers by a European power in the New World was really an expansion of European colonization. After several months Lord Salisbury replied calmly, refuting the argument that the determination of a boundary constituted an extension of European colonization or system of government. He pointed out that the Monroe Doctrine was not accepted in international law.

As a result of the correspondence between Olney and Salisbury, President Cleveland in a startling message to Congress recommended the creation of a commission to determine the "true divisional line between Venezuela and British Guiana," and stated that: "When such report is made and accepted, it will, in my opinion, be the duty of the United States to resist by every means in its power, as a willful aggression upon its rights and interest, the appropriation by Great Britain of any lands, or the exercise of governmental jurisdiction over any territory, which after investigation, we have determined of right belongs to Venezuela." A declaration of war could hardly have produced more commotion, but public opinion in general backed the President. Congress made provision for a commission, which was appointed and began work.

Before the committee made its report, England gave in and signed an arbitration treaty in 1897, providing for an international tribunal to study and settle the question. The work already done by the American commission was handed over to it. Two years later the tribunal made its report, following to a certain degree the Schomburgk line of 1841, giving Great Britain most of the territory, but the Venezuelans were secured in their access to the sea by way of the Orinoco River and Cleveland had the satisfaction of blocking the British seizure of 1885–1886. The Monroe Doctrine took on more meaning and power and the important countries of the world realized a little more that it was a force which would have to be fitted into the international balance.

Great Britain capitulated to Cleveland's demand for arbitration for several reasons. Neither country wanted war and the question was a serious one. Many leaders in England, realizing this, including the Prince of Wales, Lord Rosebery and others, did everything possible to shape British opinion in favor of compromise. Then again, while Cleveland's message to Congress stirred the English people as it did Americans, it was overshadowed by the German Emperor's telegram to Kruger, the Boer leader in Africa, congratulating him on capturing a number of Englishmen during the Jameson raid. Lacking European support, England did not wish to risk losing the friendship of the United States as war in Africa was approaching. The Venezuela boundary dispute was an incident which helped to awaken the countries of the world to the rising position of the United States.

Another incident which brought the nation to the attention of the world was the attempt to establish the "open door" policy in China. In 1899, Secretary of State John Hay, encouraged by Great Britain, sent identical notes to the other powers asking them not to interfere with any treaty port or vested interests within their spheres of interest or leaseholds in China; not to set up any tariffs but to abide by Chinese tariffs; and not to levy higher railroad or harbor rates than those imposed on their own nationals. England, Italy and Japan accepted the new policy, Germany and France acquiesced, while Russia was evasive. But Hay announced that he considered their assent final and definitive.

The open door policy was soon tested in 1900 when the Boxers, a Chinese religious and patriotic society, rose up against the foreigners living there, some of whom, including missionaries, were murdered. The Chinese government did not try to quell the uprising. A joint expedition of European, American and Japanese troops assembled at Tientsin and started for Pekin, where they put down the uprising. Fearing that the presence of foreign armies on Chinese soil would lead to the dismemberment of China, Hay notified the powers on July 3, 1900, that the United States was opposed to any disturbance of existing Chinese territorial and administrative rights, and stated further that American policy was to "safeguard for the world the principle of equal and impartial trade with all parts of the Chinese Empire." It required skill for him to carry through the American program and to protect China. Aided by the distrustful attitude of the powers to each other, he was successful in having the troops withdrawn and the open door policy continued but on certain conditions. These included punishment for the leaders, the adoption of measures by the government to prevent future outbreaks, and indemnities. In spite of Hay's efforts, the total indemnities of $333,000,000 were twice as much as the United States deemed proper. The latter received $24,000,000 although actual losses of Americans were estimated at $11,000,000. Congress returned the excess which China set aside as a fund for supporting Chinese students at American universities. The open door policy, however, was never maintained with any great success.

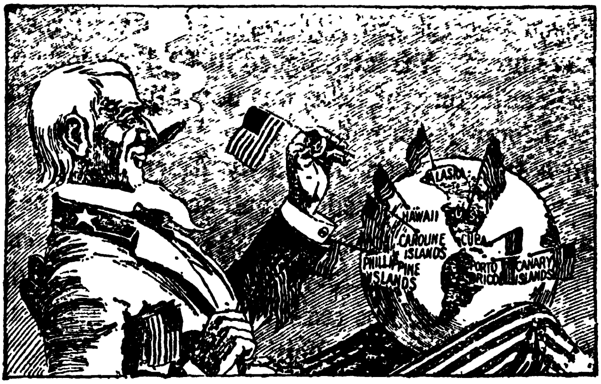
In 1902, Venezuela, under the rule of a dictator, refused to pay certain debts to Europeans. Germany suggested to the United States that coercion might be tried and President Roosevelt was not averse on the understanding that no territory should be seized. German, British and Italian fleets jointly blockaded Venezuelan ports and finally that country agreed to arbitrate. The British and Italian fleets withdrew, but the Germans, hoping to get preferred treatment of the debts, remained. President Roosevelt became fearful that the German blockade might be more or less permanent, but soon that country also accepted arbitration. The claims involved were settled by direct agreement or mixed commissions. While the affair was still in progress, Luis M. Drago, Argentina's minister of foreign relations, sent a protest to Washington. He held that in making loans to foreign countries, capitalists knew the conditions and risks they took. He declared a sovereign state could not have proceedings instituted against it and he denounced armed intervention as a means of collecting debts incurred by an American nation. The Drago doctrine, as it became known, was given a place on the program of the third Pan American Conference at Rio de Janeiro in 1906; as a result of its recommendations, resolutions were adopted at the Second Hague Conference, which made the doctrine, in modified form, international law.

In 1904, the bankrupt Dominican Republic was in financial difficulties because of its debts owed to foreigners. As a result of the situation, Roosevelt proclaimed what became known as the Roosevelt corollary to the Monroe Doctrine. In his annual messages of 1904 and 1905, he set forth the principle that, since the United States would not permit European countries to intervene in the affairs of

Latin America, this country would have to assume responsibility for preserving order and for protecting life and property there. He based his assumption on the ground that where international obligations had been flagrantly disregarded and there had been chronic wrong doing, the United States had the right to assume a measure of control in Latin America under the authority of "international police power." In order to prevent European action against the Dominican Republic, an agreement was made with that country and the United States, which granted American control of its customs. Revenues were collected by American officials who set aside 55 per cent of the proceeds for the benefit of the creditors. A treaty, signed in 1905 providing for American assistance in adjusting the debt, was not ratified. In 1907, a treaty between the two countries provided for an American customs receivership to secure a funding loan floated by American bankers. In the meantime, plans had been worked out and accepted by the creditors of the Dominican Republic. Under American control, the financial affairs of that country became satisfactory. Intervention was ended in 1924, although the American customs receivership continued until 1941.

Similar difficulties occurred in Haiti in 1915, which were intensified by domestic revolution. A new president, elected by the Congress under the protection of American marines, signed a treaty with the United States. It provided that Americans appointed as government officials of Haiti should control the country's finances, police force, public works, and sanitation. As in the case of the Dominican Republic, financial order was restored and creditors prevented from taking forcible means of collecting their debts. In 1934, intervention of the United States in Haiti was ended, although as in the case of the Dominican Republic, the United States continued to supervise the finances of Haiti under agreements made in 1922 when bonds were issued in connection with financial adjustments.

In connection with the development of financial imperialism, the government for a time practiced a policy that became known as "dollar diplomacy" — the use of diplomacy to promote financial or commercial interests abroad. President Taft expressed its meaning in 1912: "The diplomacy of the present administration has sought to respond to modern ideas of commercial intercourse. This policy has been characterized as substituting dollars for bullets. It is one that appeals alike to idealistic humanitarian sentiments, to the dictates of sound policy and strategy, and to legal commercial aims. It is an effort frankly directed to the increase of American trade upon the axiomatic principle that the government of the United States shall extend all proper support to every legitimate and beneficial American enterprise abroad." Dollar diplomacy was applied especially to Central America, the Caribbean and China, but also in other parts of the world. President Wilson repudiated dollar diplomacy in the Far East as American bankers were about to cooperate with bankers of other nations in floating a large Chinese loan. The policy fell into disrepute but was partly revived in 1939 by the government's Export-Import Banks and the political loans granted to Brazil, Nicaragua and other nations.



From "The Rocky Mountain News," Denver, 1900

UNCLE SAM: "BY GUM, I RATHER LIKE YOUR LOOKS."

The Machine Age

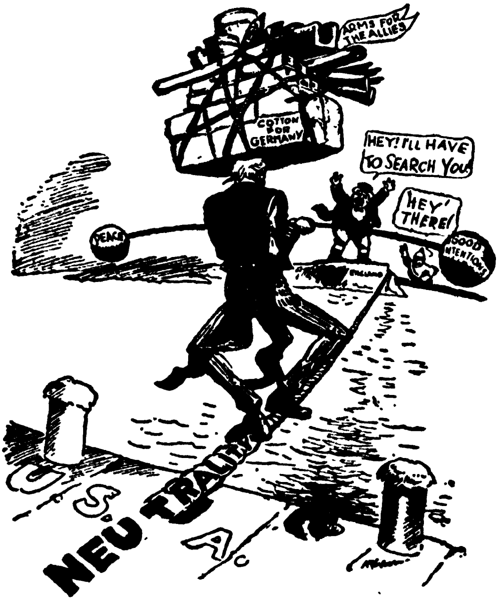
CHAPTER XXV

The United States in the First World War

Problems of Neutrality

To many people, the war in Europe broke out with startling suddenness in 1914. Its causes, however, were deeply rooted in past conditions of European society, government, and economic and political relations. The seeds of the conflict had been sown at least as early as 1871 when Germany imposed a drastic peace on a vanquished foe in the Franco-Prussian War. The seizure of Alsace-Lorraine was bitterly resented by the French, who looked forward to the time when it could be recovered. In the period that followed, the intense movements in Europe toward nationalism, the groupings of peoples on the basis of racial backgrounds, imperialistic ventures and antagonisms among European nations, and the rivalry between Britain and Germany nurtured the seeds of war. By the early twentieth century Europe was divided into two armed camps each with its own ambitions, secret treaties, and unrecorded commitments. Great Britain and France led one coalition; Germany and Austria-Hungary the other. Larger armies and navies resulted in the competitive struggle that developed. Europe became a powder barrel needing only a spark to set it off. That was supplied when in June, 1914, the heir apparent to the Austro-Hungarian throne, Archduke Francis Ferdinand and his wife, while on a visit to Sarajevo, were assassinated by a youth belonging to one of the subject peoples of that empire. Without proof, the imperial government charged the Serbian government with complicity in the crime. Sure of German support it declared war on Serbia. Through the earlier treaties, alliances, pledges and obligations, the great powers and their allies were cast into the maelstrom of war.

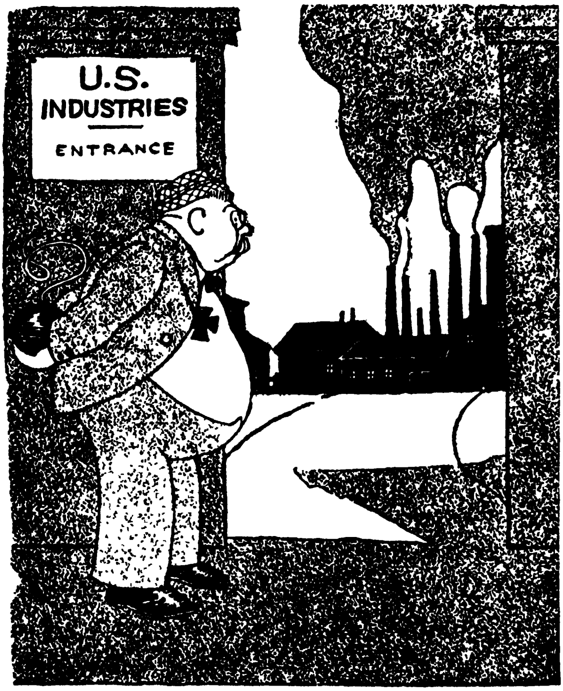
As the war began in Europe, President Wilson issued a Proclamation of Neutrality, which was repeated as the successive countries entered the conflict. A political assassination in the Balkans, the constant scene of intrigues, plots, violence and wars, seemed far remote from the United States. Wilson made an appeal to the American people to be neutral "in fact as well as in name during these days that are to try men's souls." This, however, was impossible of fulfillment as the horrors and propaganda of war excited passions and many of European birth or background sympathized openly or secretly with one side or the other. Another difficulty that confronted the United States related to American commerce on the high seas and American citizens in the warring countries. Wilson suggested to England a plan to protect the rights of neutral nations which was based on the Declaration of London, made by the naval powers in 1909 regarding contraband, blockades, continuous voyages, and other problems of wartime. Great Britain refused to abide by the proposed plan and the United States was forced to fall back on the traditional and uncertain principles of international law.



CARTOONIST JOHN T. MCCUTCHEON, IN THE CHICAGO *Tribune,* SATIRICALLY PICTURES UNCLE SAM'S DIFFICULTY IN REMAINING NEUTRAL

President Wilson vigorously upheld the rights of neutrals throughout the war, but modern methods of warfare, especially the use of the submarine and airplane, together with the conscription of all the resources of the nations at war seriously interfered with such rights. Difficulties soon arose with Great Britain and her allies. That country was able to shut off direct shipments to Germany of supplies of stores having military value, but commodities were finding their way to Teutonic soil through the neutral ports of Holland and Scandinavia.

When England began to regulate and restrict trade with those countries, trouble followed. American vessels carrying copper, cotton and other materials were seized. Protests were made to the State Department by southern cotton growers, western mine owners, and eastern exporters. It was evident that goods from the United States were reaching England's enemies, for American exports to the neutral countries bordering on Germany more than doubled during the first year of the war. As the leading neutral nation, the United States protested to England against the interference with neutral commerce, paper blockades, and the extension of the contraband list that finally came to include even foodstuffs. Irritating to the United States but of lesser importance were the strict censorship of American mails and also the establishment of a blacklist. Protests regarding neutral rights were not pushed to a breaking point because Wilson believed that a German victory would be calamitous.



THE GERMAN SABOTEUR AS PICTURED IN *Life* — A GERMAN PLOTTER IN THE UNITED STATES WITH A BOMB FOR AMERICAN INDUSTRIES MAKING WAR MUNITIONS

The difficulties between the United States and the Central Powers were even more serious from the beginning. In accord with international law, the United States sold military supplies to all nations who desired them, could pay for them, and could take them away. German and Austrian agents in the United States did everything possible to propagandize Congress to place an embargo on munitions. Congress did consider such a move for various reasons. The plan which would have been favorable to the Central Powers was blocked by the President, who stated that an embargo during the war would be unneutral. Agents of the Central Powers next undertook to accomplish their purpose by a wave of terrorism. Explosions occurred at munitions factories, such as those at Black Tom and Kingsland, New Jersey; time bombs were placed in vessels carrying supplies to England; and strikes and labor disputes were fomented by German and Austrian agents in the United States. When proof of such activities on the part of these agents was obtained, the government demanded the recall of the Austrian ambassador, Dr. C. T. Dumba, and the German military and naval attachés at Washington.

Germany's attempts to prevent neutral goods from reaching England failed early in the war as the British drove the German navy off the seas. Germany then turned to submarine warfare as a hope for victory. In February, 1915, that country declared the waters around Great Britain a war zone, warning that enemy vessels would be destroyed there "even if it may not be possible always to save their crews and passengers." International law sanctioned the use of the submarine as a weapon of war but required that under no circumstances should a vessel be destroyed without safeguarding the lives of the passengers and crews. The American government denied the legality of such a campaign and notified Germany that it would be held to "strict accountability" for any loss of American lives or property. The results of the submarine warfare appeared immediately as merchant ships belonging to various nations were sunk with loss of life. On May 7, 1915, the British Cunard liner, the *Lusitania,* which had sailed from New York a week before, was sunk without warning off the Irish coast, although notices appeared in New York newspapers before the vessel left, cautioning Americans that they boarded Allied vessels at their own risk. About 1,200 passengers and crew perished, including 128 Americans. The catastrophe shocked the world and created intense indignation in the United States. President Wilson demanded apologies, reparations, and a pledge against a recurrence of the tragedy. Many notes were exchanged and finally Germany modified its policy. But when other American lives were lost on torpedoed Allied vessels, the controversy flared up again. Another series of notes brought the promise not to sink without warning and to carry on submarine activities only in accord with the international principles of visit and search. Thus, early in 1916, war between the United States and Germany seemed unlikely if Germany kept her pledge.

Economic Effects of the War on the United States

The outbreak of the conflict in Europe in 1914 resulted in a collapse of the financial markets of the world, which were unprepared for the coming of war. The London Stock Exchange, in an unprecedented move, closed on July 31. European investors had already begun to convert their American securities into cash and as wholesale liquidation of American stocks and bonds was threatened, the New York Stock Exchange also suspended on the same day. The stock exchanges all over the country, likewise, closed their doors. Not until December 12 was the New York Stock Exchange opened for limited trading. In April, 1915, unrestricted trading was permitted.

Banking suffered during the early months of the European war. Money was withdrawn from banks and hoarded. The shortage of currency made necessary almost $68,000,000 of emergency currency which was issued for the first time under the provisions of the Aldrich-Vreeland Act of 1908, while the New York banks also used clearing-house certificates. In November, the Federal Reserve Banks opened for business and exerted a wholesome influence on the banking structure of the nation. The ability of American bankers to pay all maturing obligations in gold increased the financial prestige of the country. The gold, however, did not find its way to Europe but was used in the United States by the Allies to secure needed supplies. In order to finance their purchases the Allies also obtained loans largely through Wall Street, although at first the State Department opposed them. By the time the United States had entered the war Americans had loaned the Allied governments about $1,500,000,000 against only $27,000,000 to the Central Powers. The Federal Treasury also benefited by the war, for its gold amounting to $1,250,000,000 in July, 1914, had doubled by April, 1917. As a result of these developments, the United States changed from a debtor to a strong creditor nation.

At the beginning of the war, American manufactures were somewhat depressed. The steel industry, the barometer of trade, was slowing up. The first effects of the war were to depress still further many industries. The export of steel manufactures, copper, cotton, grain, meat and other commodities to Europe received a serious setback. This was due not only to the loss of European markets but to the fact that many foreign vessels which carried most of America's export trade were no longer available. The chemical industries also suffered severely, especially the manufactures of dyestuffs and fertilizers, as the war cut off the materials necessary for these industries, which came largely from Germany. The opening months of the war were marked by a commercial depression that extended all over the country.

By the late spring of 1915, foreign trade was on the upswing and was developing impressively. Trade with the Central Powers was largely prevented by British sea power, but commerce with England and France mounted rapidly. Cotton, wheat, and beef, together with manufactures, found a profitable and an ever-enlarging market. Cargoes seized by the Allies on the ground that they were destined directly or indirectly to Germany were paid for. Trade in munitions became most prosperous and increased from $40,000,000 in 1914 to $1,290,000,000 in 1916. The amount of foreign commerce was limited only by the dearth of ocean-carrying vessels. All types of vessels were pressed into service. A law of Congress passed in 1914 admitted foreign vessels to American registry under most liberal terms. This gave an impetus to shipping as 175 vessels sought the protection of the neutral American flag. The Shipping Act of 1916 created the United States Shipping Board, which was empowered to construct or buy vessels for use in commerce and to sell or charter them to Americans. Important regulatory powers over shipping were also given the board. By 1916, shipping tonnage under American registration reached 2,191,715. Exports to the five leading Allied nations increased from $927,000,000 in 1914 to $3,013,000,000 for the fiscal year 1916.

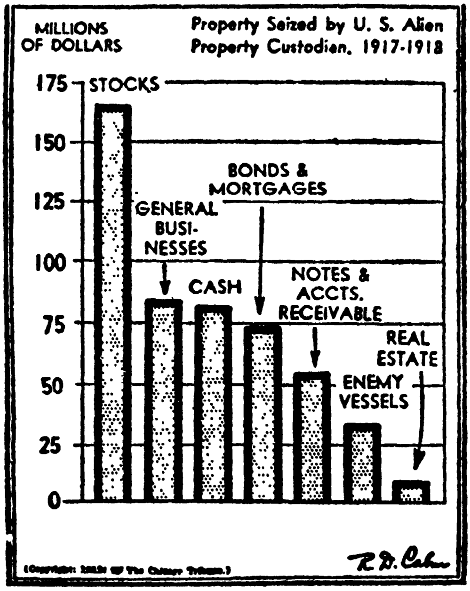
As commerce began to increase in the spring of 1915, American industries also started to recover. In addition to agricultural products and provisions, certain manufactures relating to war were in demand. Prosperity marked the manufacture of munitions of all sorts, iron and steel products, together with brass, bronze and zinc commodities, and automobile parts. Metal industries expanded chiefly to supply the machinery and weapons of death. New plants were built and old ones remodeled. The chemical industries grew in a most remarkable way as exports of chemicals, drugs and dyes increased from $21,924,337 in 1914 to $181,028,432 in 1917. Textile manufactures, especially the production of cotton linters, used in guncotton, also shared the increasing prosperity. But many other industries not related to war production suffered severely. Building operations slowed down almost to a standstill and many factories devoted to manufactures not essential to war purposes were shut down. Unemployment figures revealed that the entire country was not sharing in the prosperity and rising prices affected adversely large numbers of salaried workers and those employed in the non-essential war industries.

The fabric of American economic life became interwoven with the economy of the Allied Powers. Finance and trade bound the United States closer and closer to Great Britain and the other Entente nations. But there is no evidence of any sort to support the charge that President Wilson was influenced in any way or at any time by America's financial interests in the Allied nations when he asked Congress to declare war on the Central Powers. Nor did Wall Street bankers and financiers desire war — they were satisfied with fat profits without the immediate sacrifices and high taxation that war would bring. In 1936–1937, the Nye Senate Committee on Munitions and Loans revealed sensational data regarding profits and high finance, pointing out the relations between American interests and the Allies during the First World War. But the committee found no evidence to show that loans, munitions, and manufacturers had led the country into the war. Instead, it was the unrestricted submarine policy of Germany that forced the United States to join the Allied powers.

Drawn into War

Partly as a result of the election of 1916 which impressed the German government with the idea that President Wilson had been re-elected because he would not lead the United States into war against the Central Powers, and partly in the hope of winning the war quickly, the German government reversed its submarine policy. On January 31, 1917, Count von Bernstorff, the German ambassador at Washington, delivered a note to the State Department announcing the immediate inauguration of unrestricted submarine warfare. Neutral as well as enemy ships were to be sunk without warning, but the United States was to be permitted to send one vessel weekly in each direction across the Atlantic if properly marked for identification and if a designated course were followed. President Wilson promptly severed diplomatic relations with Germany and, although Congress would not grant him the authority, he inaugurated a policy of armed neutrality — the arming of American merchant vessels and providing them with expert marksmen from the navy.

Armed neutrality was ineffective as American vessels were sunk and American lives lost. Several other incidents prepared public opinion for American participation in the war. The Zimmermann note, from the German secretary of foreign affairs to the German minister in Mexico, directed that in case the United States should not remain neutral an alliance be sought with Mexico and that an attempt be made through the Mexican government to detach Japan from the Entente. In return for Mexican help, when victory was achieved, Mexico was to receive her "lost territory of New Mexico, Texas and Arizona." The cable was intercepted by the British Naval Intelligence Service, decoded, and handed to the United States government. Its publication strengthened President Wilson's position and increased hostility to Germany. The Russian Revolution also prepared the way for American entrance into the war as the Czar and his régime were overthrown and what appeared to be a republican form of government set up for the time being. The news was gladly received in the United States as it seemed that Russia was taking her stand with the democratic nations of the world. The chief Entente Allies were now becoming exponents of popular government whereas the Teutonic states and Turkey remained the last strongholds of military autocracy.



In his war message of April 2, 1917, President Wilson once again explained to Congress as he had done before the character of German submarine warfare, charging that neutral as well as belligerent vessels and even hospital ships were being sunk with "reckless lack of compassion or of principle." He asserted that the lives of noncombatant men, women and children were being destroyed and that the United States was filled with hostile spies. He recited the conspiracies against American national unity; he pointed out that armed neutrality had broken down; and distinguished between the German people and their masters — the Prussian military autocracy. He disclaimed any desire for conquest or dominion and asserted that "The world must be made safe for democracy." Promptly, resolutions accepting a status of war were passed and were then proclaimed by the President. The insistence of Wilson that the United States had no ulterior motives and his emphasis on the moral issues of the conflict placed the struggle on a lofty plane and gave the President and the nation a high position of leadership in world affairs.

Mobilizing Industrial Resources

The first attempts to adjust and coordinate American industry to war production were made before the United States entered the war. In August, 1916, the Council of National Defense, consisting of six cabinet officers and seven experts in designated fields, was established for the purpose of utilizing the resources of the nation for war in case of need. However, it was limited in its activities, for its powers were only advisory and it lacked authority to enforce its decisions. In July, 1917, the War Industries Board was created, but it, too, at first did not possess the authority to do effective work, although it was able to modify the soaring prices on some commodities.

As the need for a stricter control of industry became imperative, and as prices rose in an alarming manner when the great increase in governmental purchases interfered with the normal relationships between supply and demand, President Wilson, early in March, 1918, appointed Bernard Baruch as chairman of the War Industries Board and gave the board greatly augmented powers. It was given authority to adapt industries to new uses wherever necessary, to determine priorities on productions and deliveries, to fix prices, to promote industrial efficiency and eliminate waste, and to increase the volume of munitions. It was given control of the manufacturing facilities and resources of the entire country, and was authorized to make purchases for the United States and the Allies.

Under the dictatorship of Bernard Baruch, the War Industries Board carried out an industrial mobilization unprecedented in American history up to that time. The rights of free enterprise were annulled and all manufacturing was regimented. Through the agencies of subcommittees a great amount of excellent work was done. The production of about 30,000 articles came under the supervision of the board. Yet it was able to regulate manufacturing in a most remarkable and minute manner. Non-essential industries were turned over to war production, as piano factories made airplane wings, automobile plants produced Liberty motors for airplanes and airplane parts, and radiator works manufactured large guns. Goods were standardized as far as possible. For instance, the styles of pocket knives were reduced from 6,000 to 144 and the colors of typewriter ribbons limited to five. In order to save materials, tin was eliminated from children's toys, the use of steel in corsets restricted, and the styles of clothing changed to save fabrics.[1] As a result of the work of the War Industries Board a rather complete mobilization of the industries and resources of the country was achieved.

Leaders of industry cooperated with the board in a most willing and efficient manner. They submitted to the arbitrary fixing of contracts and prices, to priorities, and to distribution. A number of industrialists and businessmen volunteered as "dollar-a-year men" and went to Washington. While there were many who sacrificed their personal interests in the war effort, some profited greatly during the period of regimentation. Competitive bidding by agents of the Allied powers sent prices of certain non-regulated supplies sky-high until the government and the Inter-Allied War Council set up joint purchasing agencies which reduced this type of abuse. The scarcity of goods made profiteering in many fields inevitable, which, together with high prices, made many wealthy and increased the number of millionaires in the country.

Organized labor cooperated and also profited in the war effort. Membership in the American Federation of Labor increased from 2,000,000 in 1914 to 3,260,000 in 1919 and reached a peak of 4,078,000 in 1920. By this year, all together more than 5,000,000 workers were organized. Gompers and other labor leaders, conciliated and recognized by the government, enthusiastically supported the war. They adopted the official stand "Work or Fight" and took every advantage of the labor shortage caused by the diversion of millions of men to the armed forces and a great decline in immigration. Women were employed in increasing numbers in factories and shops and unskilled labor was trained to make up in part the scarcity of skilled labor. At the beginning of the war, industries under government control accepted trade-union standards. In March, 1918, a National War Labor Conference Board, made up of representatives of employers and employees, drew up certain principles and policies. Labor agreed to give up the right to strike for the duration of the war in return for the abolition of all restrictions on output, the unlimited organization of labor, the right to collective bargaining, recognition of the right of all workers to a living wage, and the agreement that the basic eight-hour day be observed where the law required it. The board reported that it was favorable to the creation of a permanent War Labor Board. In April, 1918, when many labor disputes were threatening to hurt the war effort, President Wilson established by procla-

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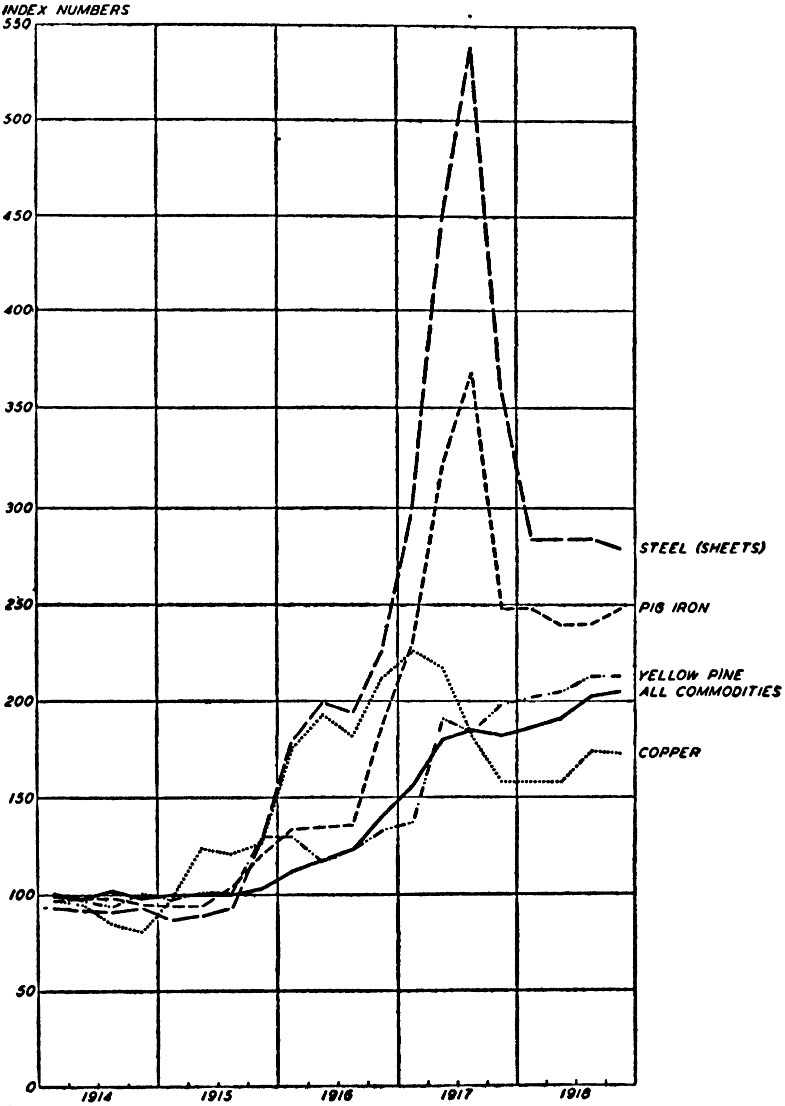
[1] Mark Sullivan, *Our Times*, V (New York, 1933), 382.

PRICES OF CERTAIN BASIC COMMODITIES COMPARED WITH GENERAL WHOLESALE PRICES DURING THE WORLD WAR[a]



Brookings Institution

[a] All commodities, U. S. Bureau of Labor Statistics, *Wholesale Prices, 1890 to 1919*, Bulletin No. 269, pp. 17-19; individual commodities, P. W. Garrett, *Government Control over Prices*, pp. 524-29, 546-47.

mation the War Labor Board. Its function was to secure voluntary, peaceful arbitration of labor disputes and its authority was based largely on the patriotic cooperation of employers and employees, and on public opinion. It followed the principles adopted earlier by the National War Labor Conference Board. By April, 1919, a total of 1,244 cases had reached the board and all had been disposed of except thirty-three. In order to aid and supplement the work of the board, the War Labor Policies Board was created. It furthered the standardization of working conditions in accord with the principles adopted by the War Labor Board and developed policies to improve the relations between capital and labor.

Government Operation of Railroads

As early as August, 1916, when danger of hostilities threatened, the President was authorized by an act of Congress to take over the railway system of the country in time of war and use it to the exclusion of other traffic if necessary. Upon the entrance of the United States into the war, it became evident that the railroads could not meet the demands of the emergency. In April, 1917, the Railroads' War Board, consisting of railroad presidents, was established. Much was done to improve conditions. Yet the railroad system broke down as traffic tangles became prevalent especially along the eastern seaboard when war orders and troop movements increased. In December, 1917 under the authorization of the act of the previous year, the government took over the railroads and proceeded to operate them as a unified system, guaranteeing to the railroads an annual income equal to the average net income of their respective lines for the three years preceding June, 1917. Secretary of the Treasury W. G. McAdoo was made director-general of the Railroad Administration and later W. D. Hines took his place. The action in "leasing" the railroads to the government was an emergency military measure and was in no way intended to be a socialistic experiment.

Under government management, many wasteful practices — some the result of competition — were eliminated. Greater efficiency and economy resulted. Equipment was standardized; unified terminals were organized; freight reached its destination by the shortest routes; unnecessary passenger trains on parallel lines were cancelled; ticket offices in large cities were consolidated; advertising was eliminated; freight and passenger rates were increased. The administration raised the wages of railroad employees and recognized the basic eight-hour day — established under the Adamson Act of 1916 — for 2,000,000 railroad employees. After a short time, the freight congestion was removed and the government was able to speed up the transit of men and war materials to France.

At the end of the first year of government operation of the railroads, the director-general recommended that Congress extend such control for five years. The war was now over and while railroad men heartily favored the proposal, public opinion in general opposed it. In 1920, therefore, under the terms of the Transportation Act (Esch-Cummins Act), the railroads were returned to private ownership. But the experiment in federal operation of the roads cost the government more than $860,000,000, not counting the money spent in replacement of equipment.

DeMar in "Philadelphia Record"

The Cartoonist's Concept of the Shipbuilding Program

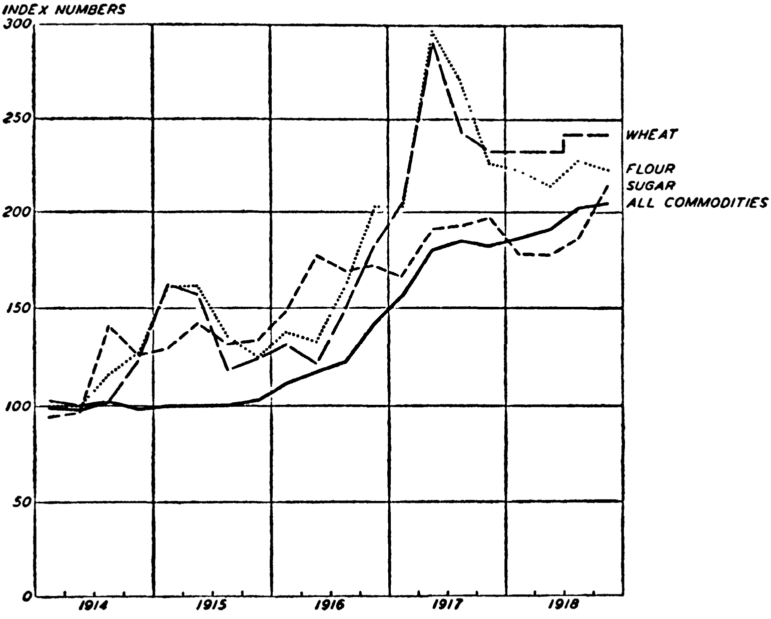
Shipping and Airplane Construction

As a part of the preparedness program, Congress passed an act in September, 1916, which created the United States Shipping Board first under General George W. Goethals and later under Edward Hurley. The new agency began its work of securing vessels for the American service. With the participation of the United States in the war, its activities expanded. It seized ninety-one German-owned vessels in American ports, adding 660,000 tons to American shipping; it assumed control of all shipyards; it requisitioned ships; it trained officers; it enlarged port facilities; and it organized the Emergency Fleet Corporation. The Shipping Board took complete control of the overseas shipping aspects of the war.

Until the beginning of 1917, the Allied nations had lost more than 7,000,000 (deadweight) tons of shipping. Vessels built in American shipyards could not replace the losses, for in 1916 American yards completed only 300,000 (deadweight) tons of ships. As the United States entered the war, the urgency of a shipbuilding program of unprecedented size became obvious if troops and supplies were to be sent to Europe to win the war. The slogan "Ships will win the war," re-iterated by Prime Minister Lloyd George before an American audience in London, gave emphasis to the idea of a "bridge of ships" across the Atlantic. In April, 1917, Congress chartered the Emergency Fleet Corporation to build, own and operate a merchant fleet for the United States government. The members of the Shipping Board became the directors and officers of the corporation. In 1918, Charles M. Schwab, a steel executive, was made director-general of the corporation.

The Emergency Fleet Corporation began work immediately. Within six months it had a capital of almost $2,000,000,000 and a program for building 1,200 vessels with a total (deadweight) tonnage of 7,500,000. It took over the 431 steel vessels that were under construction in American yards for foreign owners. It built several great shipyards, the largest being the Hog Island Shipyard on the Delaware River, which cost about $65,000,000. Here more than 41,000 men were employed at one time. Investments were also made in many private shipyards for the purpose of enlarging them. The available tonnage was greatly increased but at staggering costs for engines and other equipment. Vessels were built of steel, wood, fabricated material and even concrete. By the time of the Armistice in November, 1918, although the program called for the construction of more than 3,000 vessels, less than 400 steel ships and about 300 wooden vessels had been completed. At the close of the war contracts totaling 25 per cent of the original program were cancelled. The balance of construction was continued and not until 1922 was the last vessel delivered to the Fleet Corporation. By this time its chief problem was the disposition of the government-owned vessels.

The airplane did not play a very outstanding part in the First World War. In spite of the fact that the United States had pioneered in this field, several other countries led in airplane construction. But, after entering the war, this country made every attempt to speed the work of building planes and parts. One of the earliest war appropriations was for $640,000,000 to build factories for the production of war planes and to manufacture them in large quantities. A superior 12-cylinder engine was produced and named the "Liberty motor." But the production of fighting planes lagged. Several thousand machines were built to train student flyers, but by the summer of 1918 there were few American war or observation planes in Europe. Hundreds of American aviators sent to battle fronts were provided with machines of British and French manufacture. At the close of the war twenty-four large factories found themselves with millions of dollars of cancelled orders.



Brookings Institution

PRICES OF CERTAIN FOODSTUFFS, 1914–1918

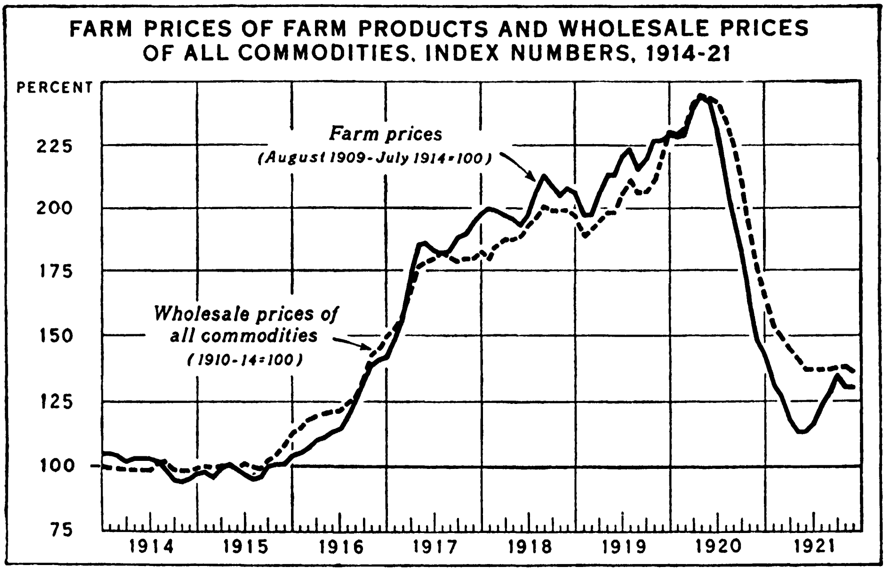
Food and Fuel Control

The Food and Fuel Administrations were created by executive orders to administer the provisions of the Lever Act of August, 1917. The law authorized the price fixing of commodities and the licensing of producers and distributors; it also prohibited unfair trade practices. The United States Food Administration was organized and Herbert Hoover, who had been appointed by President Wilson in May as voluntary food controller, was named Food Administrator. Through his work as chairman of the Commission for Relief in Belgium, Hoover was well known and had gained valuable administrative experience and much prestige.

The hoarding and unequal distribution of sugar, flour, potatoes and other goods together with extortionate prices that were being charged were among the chief reasons for the creation of the Food Administration. The need to conserve and distribute equitably all foodstuffs and to prevent hoarding and speculation was necessary not only because of the demands of the American armed forces, but also to increase the surplus for export to the Allies, who were in dire need of supplies of all kinds. The Food Administration was authorized to fix prices, license food distributors, prohibit hoarding and profiteering, regulate exports, and stimulate production. It exercised its power partly through voluntary agreements and a licensing system, but regulations were also made and enforced. Campaigns were waged to cut down waste and to reduce food consumption. Wheatless and meatless days were proclaimed, and substitutes were sought and tried for wheat flour, meat and even candy. It became a patriotic duty to have a war garden. Partly as the result of Hooverizing — the saving of food to aid the national program — the export of foodstuffs to Europe greatly increased.

In order to purchase and sell grain and other products, a Grain Corporation was incorporated in Delaware with officers from the Food Administration and with a capital stock of $50,000,000, owned by the government. It bought and distributed wheat and administered the established price of $2.20 a bushel. Another agency of the Food Administration was the Sugar Equalization Board, which was also incorporated, to stabilize the price of sugar and to secure better distribution. It bought and distributed the cane sugar crops, while a Sugar Distribution Committee controlled beet sugar. In 1919, a Wheat Director was named to license the storage, distribution, export and import of wheat and flour. In the same year the authority of the Food Administration ended and its remaining functions and powers were transferred to the Attorney General, except those relating to wheat and its products which were administered by the Wheat Director.

In August, 1917, under authority of the Lever Act, the Fuel Administration was established to exercise control over the production, distribution and price of coal and oil. It stimulated an increase in fuel production, encouraged economy in the consumption of fuel, restricted its use in industries that were considered non-essential to winning the war, regulated the distribution of coal through a zoning system, and fixed maximum prices. Under the direction of Fuel Administrator Harry A. Garfield, the Administration introduced daylight saving and induced autoists living east of the Mississippi to observe "gasless Sundays," while electric displays were banned to save fuel. The expansion of coal mining into submarginal deposits was encouraged and every effort put forth to stimulate the production of anthracite and bituminous coal. The life of the Administration ended in 1919.



From the "Yearbook of Agriculture," 1940

Agrarian Prosperity

During the first decade and a half of the twentieth century farm prices slowly rose and agricultural conditions became more tolerable and stable than they had been for over a century. When the war broke out in the summer of 1914, as international credits were disturbed, blockades established, German markets lost, and commerce upset, America's foreign markets for grains, cotton and meats were seriously affected. Within a year, however, demands from the allied nations for farm products were so great that prices were beginning to mount. In the years that followed, especially after the United States entered the conflict, agriculture had to be adapted to the changes, pressures and disruptions of war. But for six years there was much prosperity as farming expanded. This was followed by a period of depression and distress.

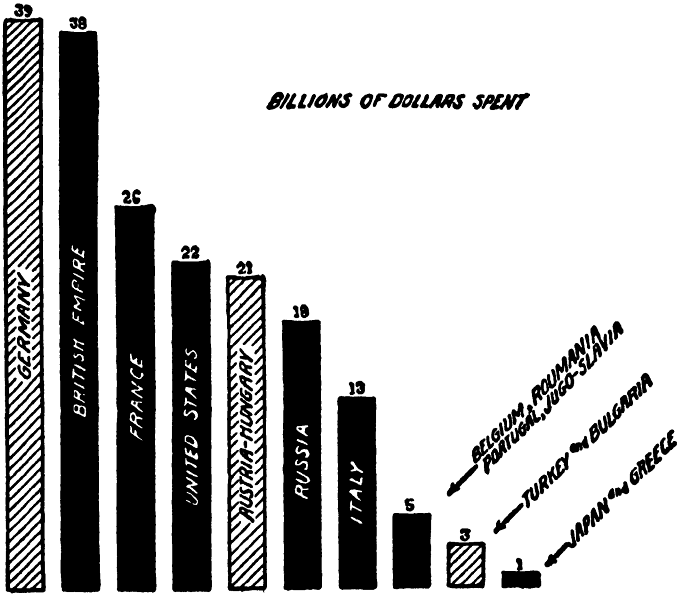
Wartime expansion brought into cultivation 20,000,000 additional acres of wheat and 5,000,000 more acres of rye. The total acreage of grain (corn, oats, wheat, barley, rye, buckwheat and rice) increased from 203,000,000 in 1914 to 227,000,000 in 1919, a total of 12 per cent. Cattle and hogs increased more than 20 per cent. Gains were marked in all basic foodstuffs. By 1918, exports of farm commodities including cotton were 45 per cent above the pre-war level. In 1919 farm exports were almost 20 per cent of the total farm production of the country.

As the European demand for foodstuffs and other agriculture commodities began to increase at the beginning of the First World War, prices rose. Wheat increased from ninety-seven cents a bushel in 1913 to $2.76 in 1919, and was generally stabilized at $2.20 during the war. Cotton, which occupied a precarious position in 1913, selling at eight cents a pound, rose to forty in 1919. Products such as wheat, cotton, tobacco, wool, hogs, and beans rose to prices before unknown. Some, including cattle, horses, hay, apples, and butter, made gains but did not soar. General levels, however, of all commodities were far higher than before the war.

The demand for American products together with rising prices spurred the farmers to increased activities and to cultivating additional land. The general prosperity enabled the agriculturalists to expand. But the government also aided them by loaning money at reduced rates of interest for the purpose of reducing debts. The census of 1910 disclosed a farm indebtedness of $3,600,000,000 in the United States, a part of which was charged interest as high as 10 to 11 per cent. It was not until 1916 that Congress took steps to remedy this condition. The Federal Farm Loan Act of that year established twelve federal land banks in as many districts under the general supervision of a seven-member board in Washington. It provided for Farm Loan Associations, organized among the farmers to guarantee the loans obtained from the banks, in which government and private funds were to be invested. The banks were authorized to make mortgage loans and to finance themselves by issuing tax-exempt bonds. Thus farmers in debt could borrow money at 5 or 6 per cent interest. Relieved of high rates of interest, many became too optimistic during the era of prosperity and went further into debt in order to expand. Unfortunately, the brief period came to an end and the condition of agriculture became a grave national problem.

Financing the War

When the United States entered the war, it was faced not only with financing its own war activities but those of the Allies as well. In July, 1917, the British Chancellor of the Exchequer, Lord Northcliffe, informed Colonel House that Allied financial resources were almost exhausted. "Unless the United States government," he stated, "can meet in full our expenses in America . . . the whole financial fabric of the alliance will collapse." During and immediately following the war, Congress authorized loans to the Allies to the amount of $10,000,000,000, of which about $9,500,000,000 were actually advanced. Almost all of this amount was spent in the United States for supplies.



Courtesy of the War Department

COST OF WORLD WAR TO THE LEADING NATIONS TO SPRING OF 1919

This chart shows government expenditures only to the spring of 1919. If we add nearly $10,000,000,000 loaned to foreign governments by the United States and other items to the $22,000,000,000 it cost us up to 1919, we have the astounding amount of over $36,000,000,000 as the direct cost to the people of the United States. This means the war cost us $1,000,000 an hour for twenty-five months following our entrance into the war.

The war revolutionized national finances. In 1914, the cost of running the government was but $35,000,000 while the national debt was only $1,000,000,000. In 1919, government expenditures reached almost $19,000,000,000, while the national debt had jumped to $26,500,000,000 (August 31, 1919). The total cost of the war to the United States from 1917 to 1919 has been estimated at more than $42,000,000,000, of which $9,500,000,000 were loaned to the Allied nations, $26,500,000,000 were spent at home, and $6,000,000,000 were dispensed in indirect outlays. About one-third of the total was raised by taxation, and two-thirds by loans.

Three methods of borrowing were used. The Treasury Department issued short-term certificates of indebtedness, borrowing from the Federal Reserve banks. These were retired as income was received. A more permanent form of borrowing was by means of a series of bond issues. The first four issues were known as Liberty Loans, while the fifth and last was called the Victory Loan. The former were long term bonds bearing from 3½ to 4¼ per cent interest. The Victory Loan consisted of two series of 3–4 year notes bearing interest at 3¾ and 4¾ per cent. A total of $21,432,918,450 was realized from the sale of the five issues and at the same time they were effective agencies for sustaining morale. The bonds were sold directly to the people. Liberty Loan Committees were organized in all sections of the country and canvassed almost the entire population; rallies and mass meetings were held; four-minute speakers delivered sales talks in theatres, moving picture houses, and hotels, and ministers from the pulpits made pleas for the purchase of bonds. As a result each issue was oversubscribed. Still another means of borrowing was through the sale of war saving certificates and thrift stamps. This plan netted $1,100,000,000. In the years that followed, most of the Liberty bond issues matured and were paid or refunded. The rest were refunded as Treasury bonds at a considerable saving of interest.

In order to provide the needed taxes, Congress enacted special revenue laws in October, 1917 and February, 1919. Income, inheritance, and corporation taxes were increased. Old excise taxes were raised and new ones levied on luxuries, amusements, gasoline, and on many other commodities. An excess-profits tax, a war-profits tax, a transportation tax, a tax on insurance companies, and others were imposed. The new taxes brought greatly increased revenues, although they were somewhat offset by the loss of revenue that followed the prohibition of the sale of intoxicating liquor in 1918. Tariff increases were not made, for such violated the traditions of the Democratic party. The drop in imports, also, had an adverse effect on the federal revenues. Yet, from April, 1917 to June, 1919, a total of $9,384,278,000 was received from taxes. After the war the special war taxes were dropped and reductions made in the income tax rates.

CHAPTER XXVI

The Machine Comes of Age

A Return to "Normalcy"

After the First World War, the idea of a return to "normalcy" was held by a large number of people. To most, who anticipated some form of economic reconstruction, the term at first was vague and devoid of meaning. In an address early in 1920, Warren G. Harding stated: "America's present need is not heroics but healing, not nostrums but normalcy." During the period that followed, the word came to mean a desire for change from the liberalism of the preceding decade.

To many powerful American economic interests, "normalcy" soon symbolized the abandonment of the important domestic and foreign policies of Woodrow Wilson's administrations. It signified a return to the high protective tariffs of earlier years, a drastic reduction of taxes, a laissez-faire policy of government in regard to business and industry, favors to corporate groups, the subservience of labor, and a vigorous nationalistic foreign policy. The "back to normal" slogan was used very effectively by the Republican party in the political campaign of 1920. The philosophy, as it unfolded, dominated the country in the following decade when the pursuit of prosperity became the chief American goal.

At the same time, in demobilizing the great American war machine, which had been built up through regimentation, partly along the lines of state socialism, there was a general feeling that much of what had been done during the emergency of war was foreign to the American principle of freedom. The ideal of individual initiative and private enterprise had been ever-present in American life from the earliest days of settlement. Americans again craved and demanded greater freedom. In their reaction to the restrictions and regulations of wartime, they elected to office an administration that brought a return of the philosophy of the pre-Progressive years of the late nineteenth century. Yet, during the period of Harding's "return to normalcy," Coolidge "prosperity" and Hoover's "rugged individualism," businessmen were ready to retain some of the advantages of nation-wide organization and integration of business and industry. This can be best seen in the business codes directed by the Department of Commerce and in the attempts to help the farmers of the country. Thus, some lessons had been learned; but the reform movement of the previous decade had collapsed.

Demobilization and Economic Adjustment

The year 1919 marked the beginning of demobilization, but it took the country some time to put an end to the activities of the war machine. When the armistice was signed in November, 1918, production was getting under way and it continued for a time on its own momentum as the war abruptly ended. The first serious problem was to demobilize about 4,000,000 soldiers and sailors together with the 11,500,000 civilian workers engaged in war work and to adjust their activities to peace-time industry. About 2,000,000 troops had to be brought back from France and fitted into the new economic pattern. The adjustment from war-time production to peace-time industry was accomplished without serious difficulties in spite of only a small amount of government aid in the task and the abolition of most of the emergency boards without much regard to their possible use in solving postwar problems.

Every effort was made to put returned veterans into their old jobs or to find new ones for them. Many returned to find that women had taken their positions. In 1920, there was a total of 8,200,000 gainfully employed women and 13 per cent of these were in the leading professions. In spite of many difficulties, men found work as industrial adjustment took place. The demand for products of all kinds from devastated Europe immediately after the war kept factories and farms prosperous for a time. These purchases, however, were financed for the most part by American loans.

Another problem that had to be solved concerned the railroads, which were being operated by the government. The Railroad Administration proposed the extension of control for five years in order to give unified operation a fair test. Labor, through Glenn E. Plumb, counsel for the organized railroad employees, proposed the so-called Plumb plan of public ownership to replace the Railroad Administration. A bill was introduced into Congress which provided that the government purchase the railroads and that they be operated by a quasi-public corporation representing the government, operators, and classified employees. Improvements were to be financed by federal and local funds; profits were to be used to retire the bond issues and other indebtedness, reduce railroad rates and increase wages. Such proposals, however, had no chance of public acceptance in view of America's postwar mood.

The Transportation Act (Esch-Cummins Act) of 1920 provided for the return of the railroads to private ownership and control. It guaranteed the roads for a period of six months a net return equal to one-half the rental paid during government operations. The Interstate Commerce Commission, which was reorganized and its membership increased to eleven, was given authority to fix minimum and maximum rates, and was granted exclusive jurisdiction over the issue of new railroad securities. The Commission was to decide rates that would enable the roads as a whole or in groups to earn a "fair return." Railroads earning more than 6 per cent were to set aside one-half the excess in their reserve funds and were to pay the other half to the government to be placed in a fund from which loans could be made to weak railroads. This was called the "recapture" clause of the act.

Reversing the earlier trend, the Transportation Act authorized the consolidation of railroads, thus relaxing the policy of enforced competition. Wartime control had demonstrated the public advantages of combination. The Commission was given power to approve pooling arrangements and traffic agreements when in the public interest. Not only could it approve mergers and voluntary consolidations, but it was required to "prepare and adopt a plan for the consolidation of the railway properties of the United States into a limited number of systems," preserving as far as possible competition and the existing channels of trade. The law also provided for voluntary adjustment boards for the settlement of labor disputes, these provisions to be enforced by a Railway Labor Board, consisting of nine members, having national jurisdiction.

Much controversy arose over the measure both in and out of Congress. It was maintained that the favorable terms of the act were necessary if the carriers were to survive the competition of interstate omnibus and motor truck lines operating on roads maintained at public expense, as well as the extension of pipe lines and the increasing use of the country's waterways. On the other hand, those who opposed insisted that the railroads and financial interests had really dictated terms that were far more to their advantage than to the public interest. The bill, however, was passed and the railroads returned to private control.

The Interstate Commerce Commission granted increases in rates varying from 25 to 50 per cent, while wages were raised about 20 per cent. The "recapture clause" would not work and, although its constitutionality was upheld by the Supreme Court, it was finally repealed. Under the terms of the law, the Commission and the Courts encouraged and urged the consolidations of lines and systems so that by 1928, 6,000 railroad lines had been reduced to about 800. By 1930, the railroads themselves proposed the consolidation of the northeastern lines into four systems: the Pennsylvania, Baltimore and Ohio, New York Central, and Chesapeake and Ohio. The depression, however, prevented the plan from being carried out. The Railway Labor Board failed to prevent a shopmen's strike in 1922 and proved so ineffective that it was abolished in 1926 to be replaced by a new agency known as the United States Board of Mediation.

During the period from 1920 to 1930, aided by the work of the Interstate Commission under the Esch-Cummins Act, except for a few weaker lines, the railroads were able to hold their own. In fact, from 1925 to 1930, they were remarkably prosperous, the returns for 1929 marking the highest point in railroad history. This was due to the work of the Commission, economies and improvements in transportation made by the carriers and to the general prosperity of the period. In spite of keen competition from busses, trucks and water-traffic, as well as the beginning of airplane commerce, the railroads made progress. But the depression after 1929 seriously affected the carriers as it did all industries. To meet competition from other transportation agencies, stream-line trains, Diesel engines, air-conditioned coaches, lower rates, increased speed, and more efficient management were adopted. But in 1938, one-third of the mileage of the country's greatest railroads was in the hands of the courts.

Another step in taking down the wartime structure was the disbanding of the government-owned merchant marine. The Jones Merchant Marine Act of 1920 rearranged the duties of the Shipping Board and authorized it to dispose of the wartime merchant fleet to private corporations controlled by American citizens as well as to operate unsold ships. A fund was established to lend money to shipowners in order to encourage shipping. The law also revived old and dubious mercantile principles, such as preferential tariffs on goods imported in American vessels, the restriction of trade with United States possessions only to American ships, and generous mail-carrying subsidies The act of 1917, granting liberal concessions to foreign shipping, was repealed. It seems strange that so liberally-minded a President as Woodrow Wilson should have signed a bill containing such obnoxious clauses. Yet it should be noted that at the time he was mortally ill and possibly did not entirely understand the measure.

The Shipping Board found it difficult to sell the government fleet. Vessels were sold for what they would bring, which was but a fraction of their worth. Henry Ford secured 200 in 1926 as "junk" for $800 each, although almost $1,000,000 had been originally invested in each. Robert S. Dollar of the Dollar Line in 1928 obtained the last government-owned merchant vessel on the Pacific. By this time the Shipping Board's fleet numbered about 800 vessels of 6,000,000 (dead-weight) tons and seventy auxiliary craft. Some were being operated; others were deteriorating chiefly in the Delaware and Hudson Rivers. American citizens had bought 1,100 vessels totaling 5,000,000 tons for about $84,000,000. But the total of American shipping had declined from 18,000,000 tons in 1923 to 16,000,000 tons in 1928. Great Britain had regained her leadership and Germany, Japan, France and Italy were building much more shipping annually than the United States.

In view of these conditions, Congress passed the Jones-White Act of 1928. Increased subsidies were offered to encourage private shipping. Larger loans bearing lower rates of interest could now be granted private concerns for the purpose of displacing out-moded vessels with modern ones; and large sums were to be paid under long-term contracts for carrying the mail. One-half the crew of a vessel now could be foreigners, ineligible for the higher wages required under the La Follette Act of 1915. That law, upheld by the Supreme Court in 1921, prescribed standards of wages, food, and accommodations for sailors, which made it difficult for Americans to compete with foreign shipping.

The Jones-White Act of 1928 changed the name of the Emergency Fleet Corporation to the Merchant Fleet Corporation. Vessels were still sold to private interests at ridiculously low prices. As a result of a congressional investigation in 1932, dissatisfaction became widespread regarding the ocean mail contract system as a means of providing operating subsidies and at the same time it was evident that the construction loan features of the acts of 1920 and 1928 had not materially encouraged new shipbuilding. The Merchant Marine Act of 1936 continued low-interest construction loans and inaugurated a new policy based on the necessity for an American flag merchant marine for purposes of national defense as well as of commerce. The Shipping Board was superseded in 1933 by the Shipping Board Bureau of the Department of Commerce which, in 1936, gave way to the Maritime Commission.

Industrial Trends

In the midst of the readjustment from war to peace-time activities a depression occurred. After reaching a peak in May, 1920, commodity prices declined and business began to slow down. By autumn a money stringency became acute and a noticeable flight of gold from the country advanced money rates. Retail dealers, who had high-priced goods on their shelves, and manufacturers, who had costly raw materials on hand, were in a serious predicament. Banks contracted loans; railroad freight loadings and earnings declined; and factories closed down. By the spring of 1921 several million persons were unemployed. Business failures numbering 6,450 in 1919 reached 22,400 in 1922. The average index number of wholesale prices of important commodities, using 100 for the 1913 level, reached 272 in May, 1920, and declined to 148 in June, 1921, remaining approximately at the level. The restriction of buying at home and the decreased demand abroad had resulted in reducing prices and in bringing back a more healthy state of business, although the process of achieving this had been most painful. By 1923, industrial life had recovered, unemployment had largely disappeared, and business failures were on the decline. Then, until the depression which began in 1929, there followed six years of general prosperity — except in agriculture and a few industries such as coal mining and textiles.

The tariff policy was reversed after the war. The Republican-dominated House in 1920 was able to secure the passage of a higher tariff measure on the grounds that European manufactures would compete more than ever with American goods, making protection necessary. President Wilson vetoed the bill. When Harding became President, he called a special session of Congress in 1921 to aid the farmers who were experiencing wide-spread suffering. An emergency tariff was passed and relatively high duties were imposed on wheat, corn, meat, wool, sugar, and other agricultural commodities. Duties were increased on textiles and a special retaliatory "dumping duty" was authorized against countries attempting to unload their surplus products in the United States. Chemicals and dyes were also granted protection from European competition, especially German.

In 1922, a permanent law, the Fordney-McCumber tariff was enacted. It protected American manufactures even more than did the Payne-Aldrich Act of 1909. Agricultural products were highly protected. Duties were re-imposed on iron, steel, textiles, and silk. The law authorized the President to alter by proclamation prevailing rates of duties, not to exceed 50 per cent, upon the recommendation of the

Tariff Commission which had been created in 1916. The law remained in effect until the Hawley-Smoot tariff of 1930 superseded it and raised the general tariff level still higher. The new tariff policy tended to foster monopolies; it prevented Europe from paying a part of its debts in goods; and it resulted in trade reprisals from foreign countries.

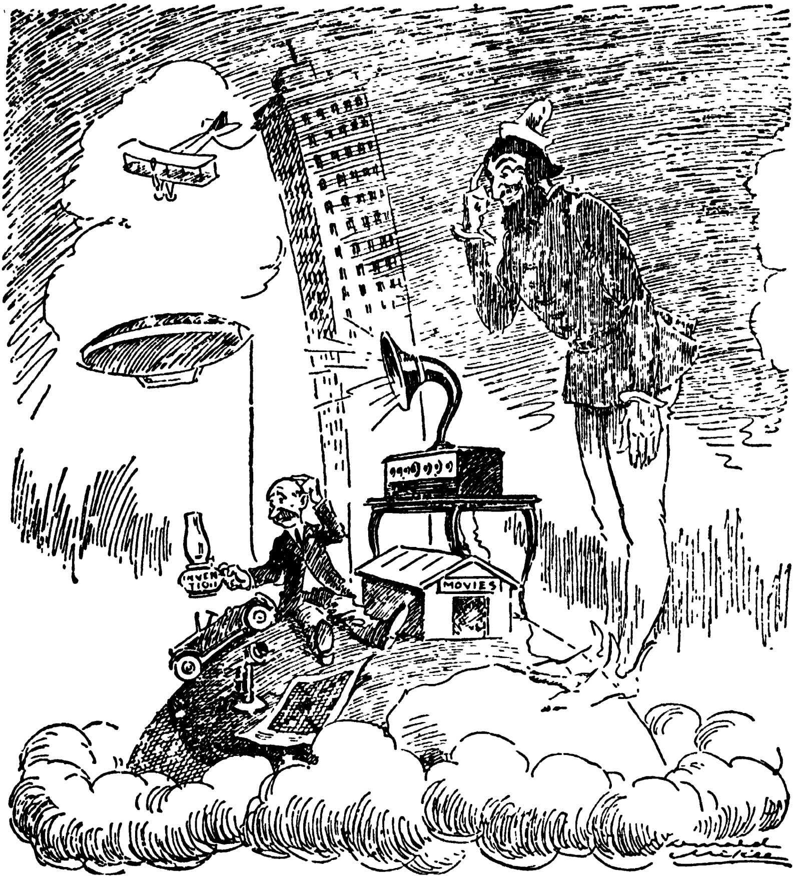
A trend that became more and more evident during the twenties was the relaxation of the regulation and control of industry by the government and the courts. The trend to restrict monopolies, which had reached a height just before the war, was now reversed. Heralding a new era was the Supreme Court decision in the United States Steel Corporation case in 1920. Suit had been brought against the "Steel Trust" during Taft's administration, but the war had interfered with its disposition. Despite the fact that the corporation controlled more than half the steel output of the country, the Court refused to dissolve it on the grounds that mere size was not illegal, that it had abandoned many monopolistic practices, that there was competition within the entire industry, and that a potential power to restrain trade was not necessarily a violation of the law. The decision went even further, declaring that the dissolution of the corporation would injure the public interest and disturb foreign trade. Apparently the principle of the "rule of reason" had ended. A new trust movement now got under way. The merger became the chief method of combination, but public utility empires were built up through the instrumentality of the holding-company device. From 1919 to 1929, more than 1,200 combinations in manufacturing and mining, involving the disappearance of 6,000 firms, took place. During the same period, more than 4,000 public utilities companies disappeared through mergers. The new combinations were most evident in the telephone and telegraph systems and in the automobile industry. By 1929, about 200 out of a total of 456,000 non-financial corporations owned 49.2 per cent of all corporate wealth and 22 per cent of the national wealth. Yet great individual monopolies had declined somewhat. For example, the control by the Standard Oil companies of the oil business which had been 80 per cent in 1911 declined to 42 per cent in 1929, while control of the United States Steel Corporation over steel production dropped during the same period from 70 to 40 per cent. But the trend toward laissez faire continued throughout the period. As late as 1933, the Supreme Court in the Appalachian Coal case declared that the joint sales agency, which included producers of 75 per cent of the output of coal, was not contrary to the Sherman Act.

The anti-trust laws were weakened by the courts in other ways.

Trade associations were declared to be legal in the cases of the Cement Manufacturers' Protective Association and the Maple Flooring Manufacturers' Association (1925). Regarding labor, it decided that a clause in the Clayton Act could not be interpreted to legalize the secondary boycott or prevent the use of the injunction in protecting property rights (Duplex Printing Press Company *vs.* Deering et al., 1921). In the years that followed, the courts increasingly granted injunctions against labor unions. The Fourteenth Amendment was also used to protect business enterprise against the encroachments of state legislatures. Thus the courts pursued policies in general designed to aid business development. Of course, suits brought for outright violations of the law were quickly decided against offenders, who were punished. But the anti-trust laws were now being interpreted from an extremely broad viewpoint.

The Department of Justice, also, was more friendly to "big business" and was in general accord with the new trends. Suits were brought for unfair practices and activities, but there was very little interference with the development of large-scale enterprise and monopolies. The Federal Trade Commission, likewise, although attempting to prohibit such practices as fraudulent advertising and the misbranding of commodities, did not attack interlocking directorates which thrived during the period in spite of the Clayton Act. Nor did the commission interfere with the development of holding companies, which reached an unbelievable extent through pyramiding, as could be seen in the giant system of Samuel Insull in public utilities and the Van Sweringen brothers who controlled railroads valued at $2,000,000,000 on an investment of less than $20,000,000. Congress, the courts, and agencies of government all felt that the anti-trust laws hindered business prosperity and they acted accordingly. But many companies took advantage of their new freedom. Practices were used to manipulate stocks to the disadvantage of the public and stock watering greatly increased. The abuses that grew through the decade were partly responsible for the seriousness of the depression which began in 1929.

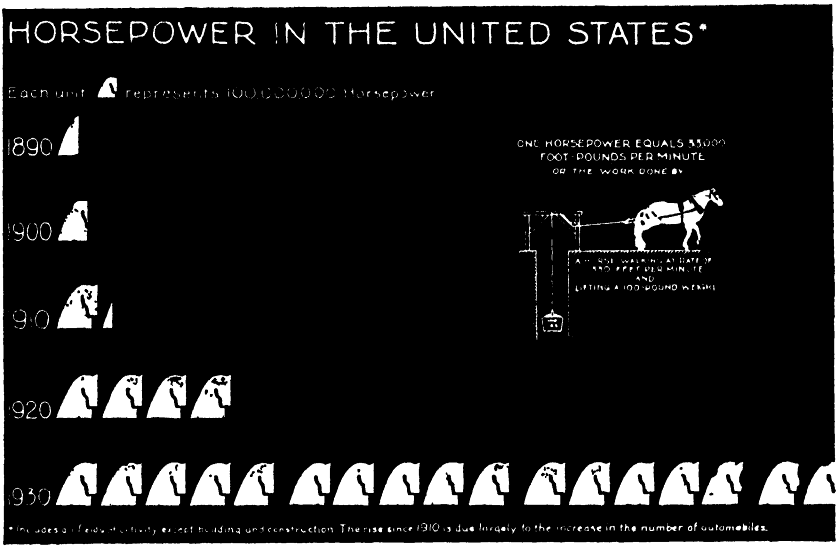
The federal government attempted to aid business in other ways. A high tariff and lower taxes provided additional capital for expansion. The Department of Commerce under Herbert Hoover promoted industrial efficiency through standardization, uniform policies, the elimination of unfair practices, the dissemination of information, and research. Trade organizations were fostered and during Hoover's eight years as Secretary of Commerce over 400 "trade associations" were formed. They pooled information and reached profitable agreements. More than 200 "codes of fair practice" were drawn up and accepted — some of them to be copied later by the NRA. The Federal Trade Commission condemned the Department as an agency for price-fixing, but the Supreme Court at this time upheld the codes. The Department also acquired jurisdiction over the Patent Office (1925) and expanded the work of many of its agencies.



"Aladdin — I Wish — I Wish I Had a — Now — I Wish I Had Sump'n to Wish For!"

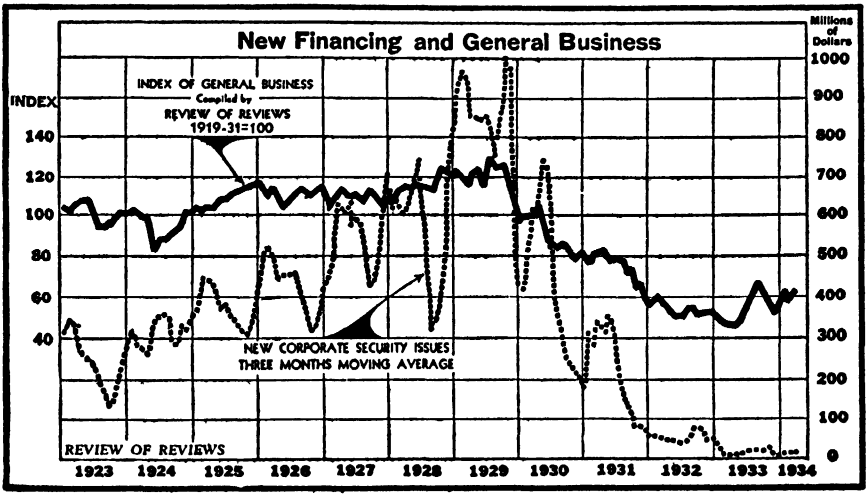
Cartoonist Donald McKee in *Judge* for March, 1925, depicts the material enrichments of man during the first quarter of the twentieth century

As the machine began to dominate human affairs, and mass production and standardization more than ever before became a part of American life, industrial research helped to apply the discoveries of science. Much progress was made in the development of new materials and processes, as well as in new uses for products. Industrial research in a crude and lowly form may be traced back to an early period of American history, but not until the twenties did it attain a high position. In the nineteenth and early twentieth centuries, industrial research was stimulated by observing such progress in Germany and other countries. In 1910, Robert Kennedy Duncan began his industrial fellowship system, which led to the establishment of the Mellon Institute of Industrial Research at Pittsburgh in 1913. Chemical, physical, and engineering societies grew more interested and expanded their research activities. The war gave an impetus to research as the need for quick and cheap manufacture of new and substitute products emphasized the necessity for scientific methods. In 1916, the National Research Council was organized by the National Academy of Sciences at the request of President Wilson for aid during the war and afterwards for the encouragement of research in the natural sciences, especially through cooperation. Its members, representing scientific societies and research institutions, were divided into a number of groups including the physical sciences, engineering and industrial research, chemistry, and others. Manufacturing companies in all fields, also realizing the importance of research, established laboratories. Through all these means in addition to the work carried on by educational institutions, government bureaus, and consulting laboratories, industrial research reached a high stage of development. In 1938, about $180,000,000 were spent by American companies for industrial research.



WPA Project No. 65–97–273. Courtesy of "Building America"

Industrial management, likewise, became highly scientific. An outgrowth of the technique of mass production, management became scientific because of the need for analyzing and solving problems of production. Its purpose came to include the study, standardization, and improvement of working conditions in order to lower the cost of production and thus secure greater benefits for capital, labor, and consumers. Frederick W. Taylor, "the father of industrial management," who worked his way from apprentice machinist to executive positions, accomplished much in developing, applying, and expanding the principles of scientific management in the period from 1880 until his death in 1915. His lifework was summed up in his *Principles of Scientific Management,* published in 1912. Among others in the field were Henry L. Gantt, who for a time was associated with Taylor and stressed the humanizing influences of management; Frank B. Gilbreth, who developed a technique for studying motions in performing work; and Harrington Emerson, who worked independently of Taylor. Over a period of about fifty years, the profession of management developed and industrial and business executives were given training in the principles and practices of management.



A trend that became most pronounced during the period was the separation of the ownership and control of corporations. In almost all large corporations the number of stockholders grew. In many, the principal stockholders by 1931 held less than 1 per cent of the stock. Holders of Pennsylvania Railroad Company stock increased from 91,571 in 1914 to 241,391 in 1931, while United States Steel Corporation common stockholders rose during the same period from 52,785 to 174,507.[1] Thus the old significance of ownership disappeared as investors bought securities solely in the hope and expectation of obtaining dividends and of an increase in the value of their holdings. Stockholders, and also bondholders, came to be dispersed over wide areas and were represented by directors. The management of present-day corporations, therefore, has largely passed from the legal owners into the hands of directors and professional executives.[2]

Organized Labor

Organized labor emerged from the war more powerful than ever before and somewhat inclined toward radicalism. A total of about 5,000,000 union members of whom 4,000,000 belonged to the American Federation of Labor bore witness to the effects of the war. The dissatisfaction of labor as the rising cost of living forged ahead of the increases in wages had caused much unrest during the war, but serious trouble had been averted through the establishment and work of the National War Labor Board although many strikes occurred even in 1918. After the war, the discontent of labor, stimulated by the process of readjustment to peace-time activities, together with the determination to retain the gains already won and to force new ones if possible, resulted in a number of serious strikes and disturbances.

One of the most significant strikes after the war occurred in the steel industry. For a generation attempts had been made to unionize that industry but without success. Following the failure of a strike in 1909, the open-shop generally prevailed in the industry. The First World War presented an opportunity to organize labor in the steel plants of the country. Led by the American Federation of Labor, twenty-four unions in 1918 established a Committee for Organizing the Steel Industry and a campaign was inaugurated. Attempts to negotiate with the steel companies failed. A strike to force recognition of the union, higher wages, and the eight-hour day began in September, 1919. About 400,000 men were involved altogether. The large numbers of such nationals as Jugo-Slavs, Czecho-Slovaks, Rumanians,

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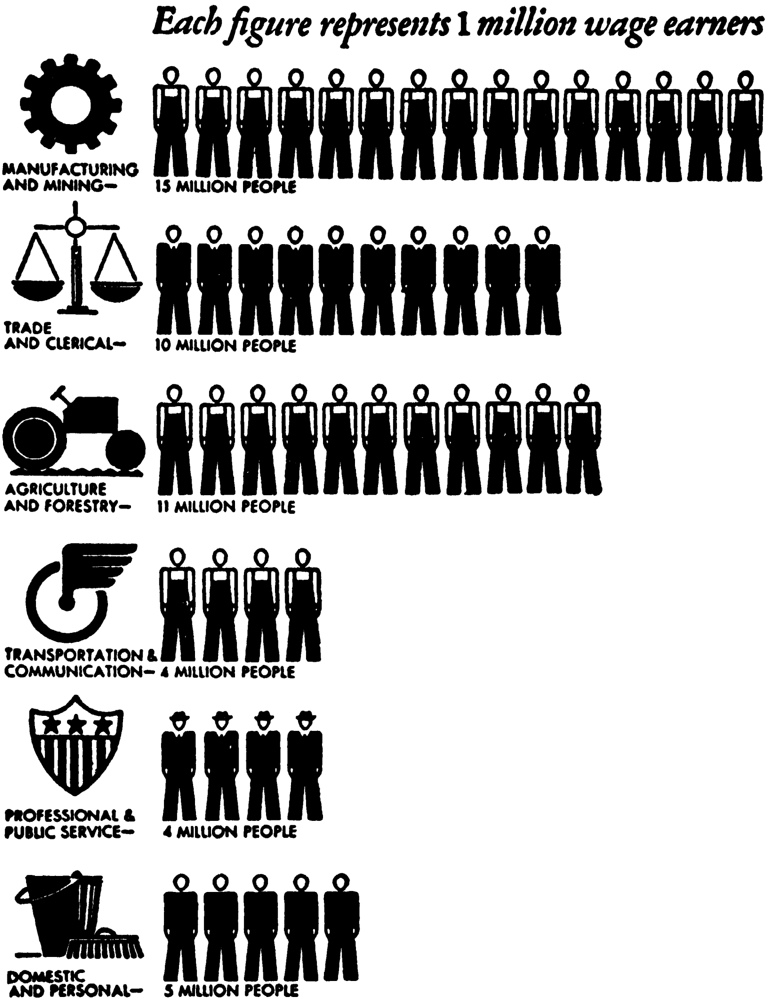
[1] In 1940, there were 630,902 stockholders of the American Telephone and Telegraph Company; 397,928 of General Motors; and 163,425 of United States Steel Corporation.

[2] Professional management is meant here This should not be confused with the term management used by James Burnham in *The Managerial Revolution* (New York, 1941), who defines the managerial group as "the operating executives, production managers, plant superintendents, and their associates [who] have charge of the actual technical process of producing. It is their job to organize the materials, tools, machines, plant facilities, equipment, and labor. . ." (p. 82) Economists usually refer to these as technicians. Burnham suggests that the enlargement of this managerial type of social organization might result in the disappearance of pecuniary relationships between capital and labor, a debatable suggestion.



From "How to Use Pictorial Statistics," by Rudolph Modley. Published by Harper

DISTRIBUTION OF CHIEF OCCUPATIONS IN 1930

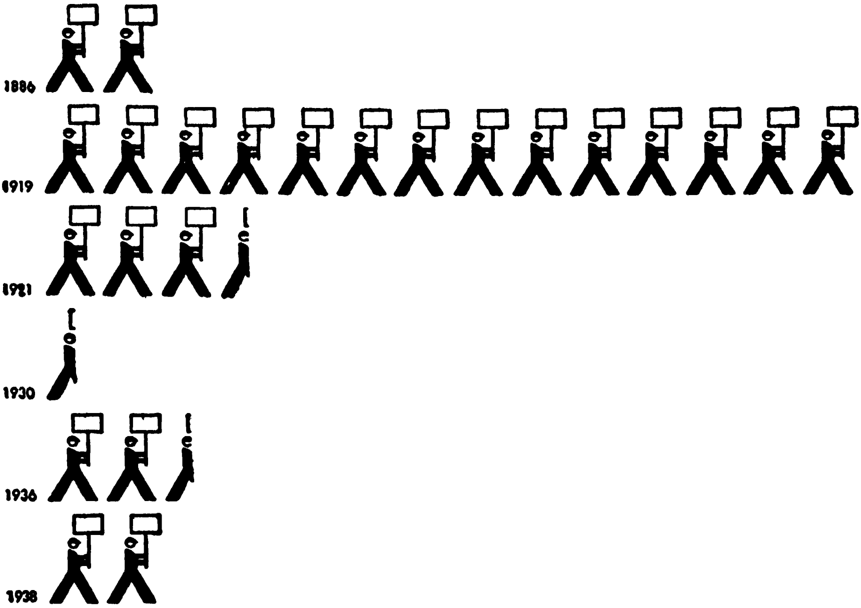
Greeks, Italians, and Poles as well as Welsh, English, Irish and American, working in the mills under such conditions as the twelve-hour day and seven-day week, the extensive use by employers of blacklisting and labor spies, and the control of the community life of the workers, provided a fertile field for the attempt at organization. Although all labor leaders agreed on the immediate aims of the strike, there was a division of opinion among them as to the ultimate plans of the labor movement. Disputes occurred over the merits of craft unionism over industrial unionism, skilled trade unionism over working class solidarity, and conservative unionism over revolutionary or radical unionism. The employers were not slow to take advantage of these divisions of opinion among the labor leaders and they gave publicity to the differences.

An impartial commission of the Inter-Church World Movement investigated conditions in the industry and reported that grievances of workers were real. The commission declared that it found an average work week of sixty-eight hours, the underpayment of unskilled labor, the military regimentation of workers, and the autocratic control of the industry by the capitalists. Unfortunately, the commission did not distinguish between what was good and what was bad in the various plants, and within the ranks of skilled and unskilled workers. It did not attempt to differentiate between the different companies whose policies varied considerably. When the commission offered mediation, Ex-judge Elbert H. Gary, chairman of the Board of Directors of the United States Steel Corporation, insisted that the result of a victory for unionism would be communism and a forcible division of property.

The strike centered in Gary, Indiana, the company town of the United States Steel Corporation, and in different parts of Pennsylvania. It was marked with the customary violence and lawlessness. But it was ill-timed and inadequately supported by organized labor. The cry of many workers: "In union there is strength" came too late. Steel orders, too, were on the decline, and the mills were successful in obtaining non-union labor. Public opinion began to turn against the workers as some labor leaders demanded a share in the direction of industry. This idea was capitalized by employers to the disadvantage of the strikers. The fears on the part of the public that sovietism was developing in the United States obscured the repudiation of collective bargaining by the employers. The strike collapsed and ended in January, 1920. Two years later, the United States Steel Corporation gave the workers the basic eight-hour day and in the years that followed, steel workers received other concessions that they had demanded, although inflexible opposition to the unionization of the workers was maintained until 1937.

Among other strikes of the post-war period, the bituminous coal strike of 1919–1920, in the Indiana coal-fields, was serious. A federal commission adjusted the wage dispute and the strike was temporarily ended. A threatened strike of anthracite miners in June, 1920, was averted by an agreement made between the employers and employees to submit differences to a commission for settlement. But in April, 1922, the miners of both bituminous and anthracite fields went on a strike which lasted five months, seriously threatening the industrial prosperity of the nation. It involved 500,000 union miners and 90,000 non-union men. It was caused by the attempt of the mine owners to deflate war wages. Agreements were made whereby the workers were to receive the old wages until March, 1923, and fact-finding commissions were provided for. A new strike threatened the anthracite industry in 1923 when the old contract expired. Then Congress took a hand. It authorized the Interstate Commerce Commission to

WORKERS INVOLVED IN STRIKES AND LOCKOUTS



Each symbol represents 300,000 workers

PICTORIAL STATISTICS, INC

From Faulkner & Kepner "America: Its History and People," Harper Brothers

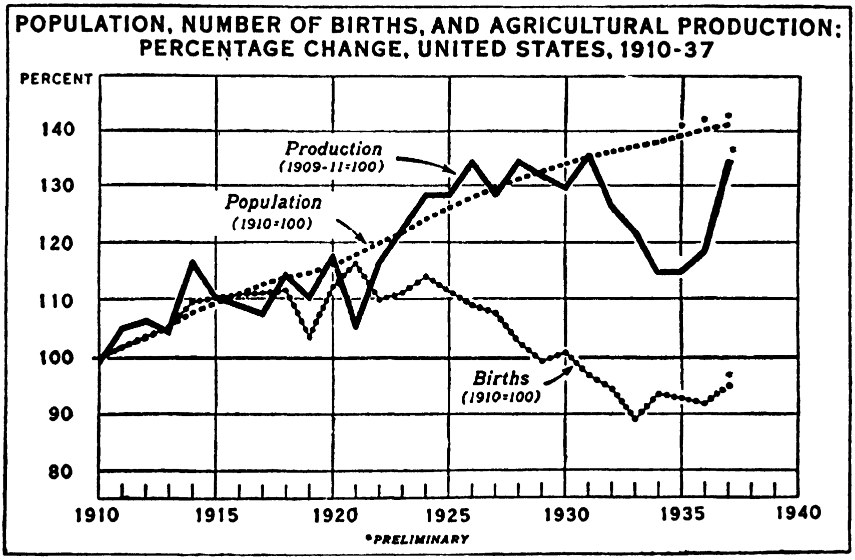
control coal shipments in the emergency and to force down unjust prices. It provided for a coal director and created a coal commission to investigate. The commission recommended a law empowering the President to take over and operate the mines whenever operators and workers were deadlocked. At this point, President Harding appointed Governor Gifford Pinchot of Pennsylvania as mediator. He succeeded in effecting a settlement. In another strike lasting from September, 1925, to February, 1926, President Coolidge refused to interfere and the strikers lost.

In the summer of 1922, the railroad shopmen walked out because of a 12 per cent cut in wages, authorized by the Railroad Labor Board. The strike was an attack on the authority of the Board. Subpoenas issued to railroad managers and union heads were not obeyed. A White House conference produced no results, although an injunction of a federal court, forbidding trespassing on railroad property, did. By September, an agreement was reached and the men returned to work. In 1926, the Railroad Labor Board was abolished and railroad disputes were turned back to the interested parties for settlement. The law provided for adjustment through mediators and fact-finders without authority to enforce their decisions.

Although the conclusion of the war brought many serious labor disputes, strikes were reduced in number and intensity during the decade of the twenties. The average number of strikes from 1881 to 1885 was 500, while from 1916 to 1921, the annual average was 3,500. There were fewer labor disputes in 1927 than in any other year for a generation, as the 4,450 strikes of 1917 declined to 732 in 1927. The temporary recovery from the depression which began in 1929 came in the mid-thirties and it brought industrial unrest and strife once again.

During the decade of the twenties, the power of organized labor waned. The membership of the American Federation of Labor declined from 4,000,000 in 1920 to 2,800,000 in 1930. Still it continued to resist association with the masses of unskilled labor. The reasons for its decline during these years may be found in its defeats in a number of strikes. It also failed to organize workers in the automobile industry and in the growing textile mills of the South, while at the same time, it could not vitalize the Amalgamated Association of Iron, Steel, and Tin Workers. The death in 1924 of Samuel Gompers, whose work passed to less able leaders, was another factor in the loss of power of the American Federation of Labor. Dissatisfaction, too, among the more radical elements caused difficulties which were to bring trouble to the organization in the next decade. But labor, generally, was in no organizing mood. Prosperity in most industries, industrial welfare programs and profit-sharing plans, and the fact that real wages were high, served to keep workers in a state of relative contentment. As labor organizations declined, the open-shop triumphed. But not for long.

One factor that aided the prosperity and well-being of labor was the new policy regarding immigration. In the year 1914, more than 1,200,000 immigrants passed through American ports of entry. The First World War stayed the tide of immigration but it also clearly revealed that aliens had been coming to the United States faster than they could be assimilated and that it was impossible to fuse foreign elements within a short period of time. Labor leaders had long demanded restrictive laws. After the war, civic and political leaders joined labor in protesting against the expected influx from Europe. Many advocated a policy of selective restriction, which would reduce the number of immigrants from those parts of Europe where illiteracy was high and where political tradition, cultural environment and governmental philosophy were opposed to those of the United States. Others urged a highly restrictive policy to keep out the hordes of Europeans who were looking forward to beginning life anew in this country now that the great conflict had ended. Commissioner of Immigration Wallis warned of the prospect of a tidal wave of immigration: "The world is preparing to move to America."


POPULATION, NUMBER OF BIRTHS, AND AGRICULTURAL PRODUCTION: PERCENTAGE CHANGE, UNITED STATES, 1910-37

From the "Yearbook of Agriculture," 1940

During the war, the immigration act of 1917 was passed. It marked a turning point between the older "welcome" policy and the highly restrictive plans that followed. The act provided for a literacy test. President Wilson, like Cleveland and Taft before him, vetoed the measure, but it became law over his veto. It increased the head tax to $8 and provided the usual exclusions to guard the health, morals, and institutions of the United States. A noteworthy clause provided that all aliens over sixteen years of age, physically capable of reading, should be able to read English or some other language. Some exceptions were made, for example, such as applied to close relatives of those in the United States who were fleeing religious or political persecution. A new era in the regulation of immigration was beginning.

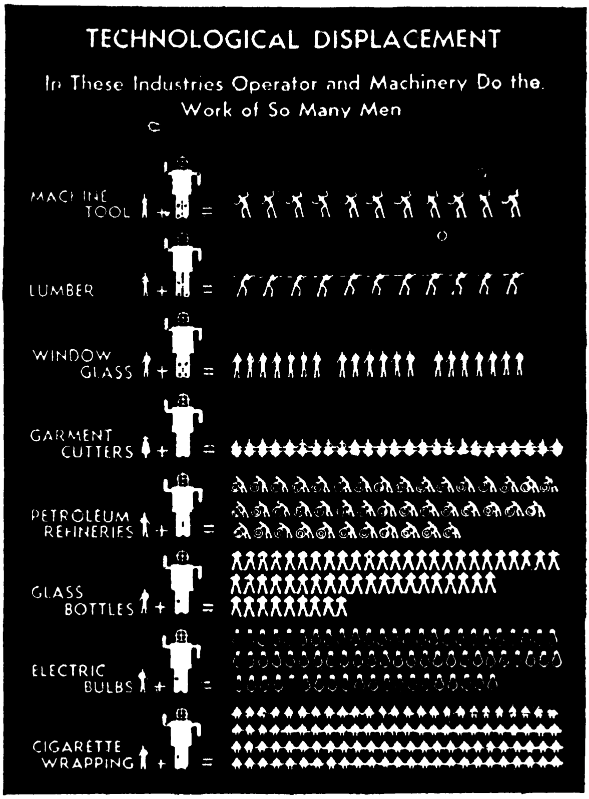
The immigration law of 1921 limited the quota which any country could send to the United States to 3 per cent of its people here according to the census of 1910. The act was a temporary one but was extended to 1924. It did not apply to natives of the New World nor to those of Asiatic countries already restricted. Exceptions were also made in the case of government employees, businessmen, students, and travelers from a number of specified countries.

The law of 1924 provided for an even more drastic limitation of immigration by reducing the quotas to 2 per cent on the basis of the census of 1890. This achieved the purpose of automatically increasing the proportion of immigrants from northern and western Europe. One provision, aimed at the Japanese, which barred all aliens ineligible to citizenship, was vehemently protested by that nation but without avail. The law also set forth that after July 1, 1927 there should be applied the "national origin" principle, whereby each country was to be accorded "that proportion of 150,000 which the number of persons of a given national origin residing in the United States in 1920 bears to the country's total population." Although such calculations were complex and attempts were made to simplify the plan, the new quotas were proclaimed by President Hoover in March, 1929. Of the 153,700 eligible to come to the United States under the plan in 1931, only 54,118 entered the country. Of course, the world-wide depression, including economic conditions in the United States, largely accounted for this. Many were also excluded because they might have become public charges. The restriction of immigration among certain non-quota or excluded groups was accomplished through the action of immigration officials. For example, 89,000 crossed the border from Mexico in 1925. This number had dropped to 3,300 in 1931.

Technological Unemployment

Technological unemployment, the term used to denote unemployment which results from technological changes, actually is not new, for isolated cases of men being displaced by machines go back into the past. The use of cannon in the late Middle Ages resulted in the downfall of the European armorsmith. The introduction of the blast furnace during the same period interfered with the employment of those who had always crudely hammered out iron at Catalan forges. But it was in eighteenth-century England that serious antagonism to new inventions first developed. The power loom was assailed by those whose daily life and existence it affected directly and who could not see that ultimately it would create thousands of jobs for every one it destroyed. The results were machine-breaking riots, the persecution of inventors, and legal safeguards for old processes and various restrictions on new ones.

The changes in industry throughout the nineteenth and twentieth centuries showed a little more clearly the suffering brought to groups of workers because of their displacement by machines in various industries. In the United States, the linotype and cigar-molding machines are outstanding examples. But it was in the decade or so following the First World War, as the machine came of age and as seeming prosperity fell on the country, that the serious effects of labor-saving machinery to those who were being displaced became more and more evident. Even in the most prosperous years of the "golden decade" more than 2,000,000 men were unemployed and many of these were out of work because of developments in production techniques. Skilled workers who were dislocated, especially the older men, found it difficult to adapt and adjust themselves to new positions and were forced to become laborers if they were fortunate to secure such jobs. This was obvious, for example, in the introduction of the hot-strip mill for the rolling of tin plate and sheet steel, which abolished more than 100,000 jobs in that industry. The same was true in many other indus-



From "Rich Man, Poor Man," courtesy Harper Bros.

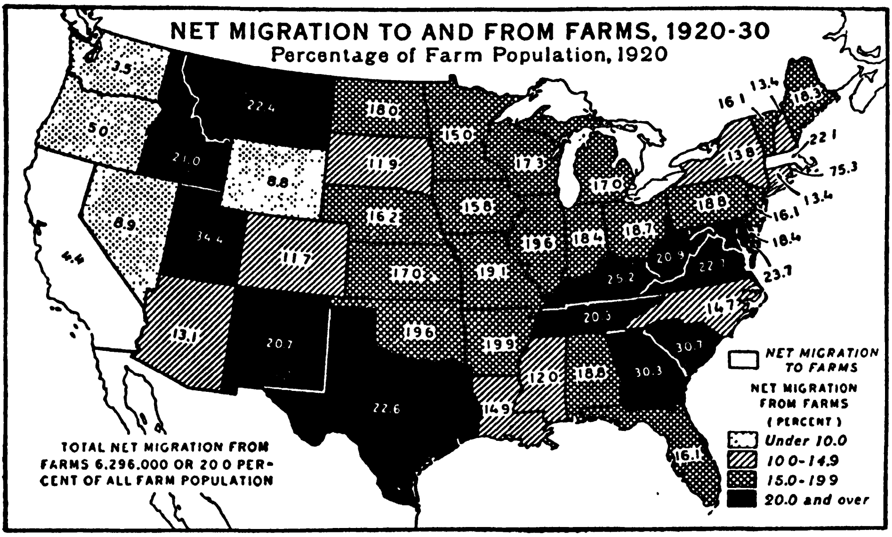
tries as mechanization and scientific management resulted in the production of an unsurpassed volume of goods. In only a few cases at this time were any attempts made to retrain or transfer the employees to other positions. The influence of competitive practices and the power of labor organizations operate to prevent such planning.

While new processes have resulted in misery and suffering to large groups of workers, the question as to the long-time effects of the rapid mechanization of industry to the employment of workers is still a controversial issue. The electrical and automobile industries have opened up hundreds of thousands of new positions. Yet only sixty men were needed to do as much work in manufacturing in 1930 as 100 men had done in 1920. The trend since that time has been in the direction of increased mechanization. If new industries, such as the electrical and automobile trades, could be established periodically, there would be little question about the long-time gain to labor. It is, however, difficult to determine the full effects of changing technology on the general volume of employment and unemployment because such an analysis involves improvements in methods and management, changes in mechanical inventions, the varying prices of goods and services, problems regarding the migration of workers, and the effects of prosperity and depression upon industry. The changes brought about by a war economy is another complicating factor. The attempts made to explain away the great amount of unemployment in the depression decade of 1930–1940 as largely due to displacement by machines is, of course, unwarranted, but it is obvious that more study as well as careful planning will be necessary to solve one of the greatest national problems — that of unemployment in peacetime.

The Plight of Agriculture

The agricultural prosperity of the First World War ended in the depression of 1920–1921 when prices crashed. Wheat, which had sold at $2.76 a bushel in 1919, fell to $1.44 in December, 1920 and cotton dropped during the same period from forty cents a pound to fourteen cents. The serious decline of agricultural prices was first noted in the summer of 1920. The blow struck the farmers in the fall of that year about the time that the grain crop was reaching the market. While industry generally recovered from the effects of the depression within a year or so, farm prices remained in a collapsed condition. At the same time, the relative rigidity of the prices of manufactured goods and supplies that the farmer needed together with continuing high farm wages created a new and alarming disparity between farm income and costs.

The decline in agricultural prices was the result of the ending of the stimulation of production brought by the war. Large numbers of men from the disbanding armies in Europe went back to their farms to increase the world's supplies of grain. Americans had to compete more than ever before with such wheat-growing countries as Russia, Canada, Australia, and Argentina. The impoverishment of Europe and the resulting reduction of buying power was another factor that led to the rapid deflation of foreign trade, especially after the United States ended its policy of loans to foreign countries. Then, too, mechanization, including the use of tractors, trucks, automobiles, farm machinery, gas engines and electric power, which had made rapid progress during the war, now operated against the farmer and more in favor of middlemen and consumers as supply exceeded demand and surpluses grew.



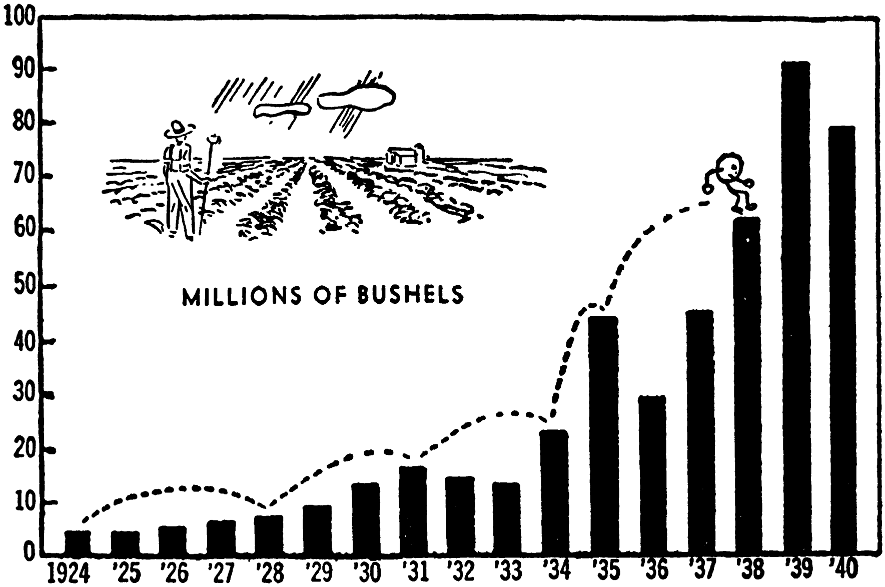
From the "Yearbook of Agriculture," 1940

The distress of the agrarians revitalized the National Grange and other agricultural organizations, while new ones sprang into being. The war had stimulated agricultural colleges and the Department of Agriculture to integrate their extension work to form local farm bureaus. These clubs of farmers provided an organization, especially after the American Farm Bureau Federation was founded in 1919, which brought strength to the agriculturalists. With the hard times of 1920, it set up an office in Washington, joining several farm organizations represented at the capital to form a strong pressure group. Pressure was brought to bear on law-makers and administrators in the federal and state governments to work in the interests of the farmers. As early as 1920 a new Farmer-Labor Party elected several members of Congress. The next year, members of Congress belonging to both major political parties organized a farm bloc under the leadership of Arthur Capper of Kansas, William S. Kenyon of Iowa, and the insurgent Robert M. La Follette of Wisconsin, to initiate and carry through legislation to benefit the farmers. In 1924, the plight of the farmers was largely responsible for a new Progressive Party (Conference for Progressive Political Action) under Senator Robert M. La Follette, which showed much strength in its 5,000,000 voters, especially in the twelve middle-western or far western states. Four years later, the agrarians had no important national party of their own, but both major political parties promised aid and relief. In the next presidential campaign of 1932, the farmers as a whole were chiefly interested in ousting from power the Republican party, which they blamed not only for a lack of effective legislation to aid their cause but even for the depression itself.

Widespread agricultural discontent together with able representation brought legislation of different varieties intended to aid the agrarians. These aimed primarily at raising farm prices and granting farmers relief from the credit situation. The emergency tariff of 1921 and the Fordney-McCumber tariff of 1922 were designed to include protection to agricultural products such as wheat, corn, meat, wool and sugar. But the tariff wall had no effect on increasing prices, which continued their downward trend.

Congress also enacted in 1921 the Futures Trading Act in an attempt to prevent the exchanges of the country from gambling on the nation's grain supply, while in 1922 and 1924 Cooperatives Acts were passed to exempt agricultural associations or cooperatives from prosecution under the anti-trust laws. Another law, an Intermediate Credit Act (1923), established twelve credit banks in the Federal Land Bank cities for the purpose of advancing credit to farmers for periods from six months to three years — longer terms than usually made by commercial banks and shorter than the ordinary farm mortgage. They were empowered to rediscount commercial paper, the proceeds of which had been used for agricultural purposes, and they could also lend money directly to agricultural cooperative associations on notes secured by goods in storage or in transit. Such measures, however, were mere palliatives incapable of giving permanent relief.

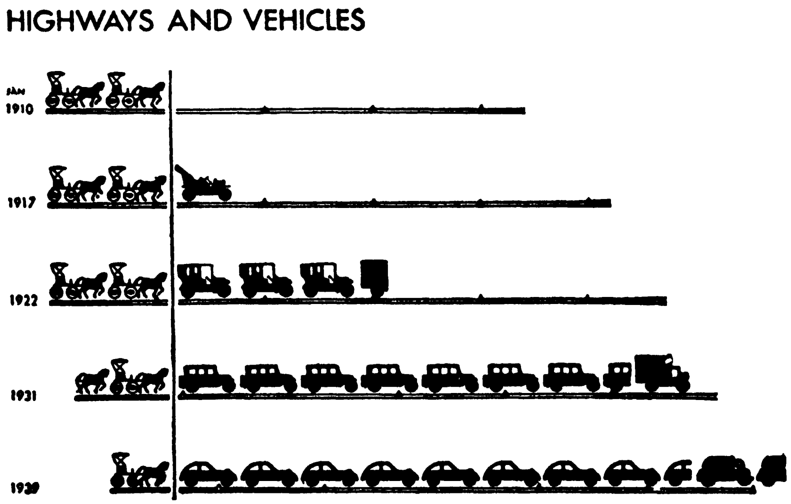
Improved agricultural conditions in 1924 and 1925 were reflected in rising price levels. But the most persistent problem was that of surplus production. In an attempt to solve this vexatious problem, from 1924 to 1928, Congress considered legislation which received powerful and united support from the agricultural interests. In 1927, the McNary-Haugen bill was passed, but President Coolidge vetoed the measure. The next year it was passed again in modified form only to receive a second veto. The basic idea of the McNary-Haugen or equalization fee plan was to set aside that portion of an agricultural staple required to meet the domestic demand from the exportable surplus. The former was to be sold at a fixed domestic price — world price plus protective tariff duties. The surplus was to be sold in world markets for whatever it would bring. The difference between the higher domestic price and the world price obtained for the surplus was to be met by the farmers of each commodity in the form of a tax or equalization fee. Since an increase in surplus would mean a larger equalization fee, and thus a lower price to the producer, it was believed that overproduction would be automatically reduced.



Courtesy of the National Association of Manufacturers

PRODUCTION OF SOYBEANS, 1924–1940

President Coolidge vetoed both McNary-Haugen bills on the ground that price-fixing through the equalization fee would result in an "intolerable espionage" carried out by a "widespread bureaucracy," that it would encourage speculation, that it would favor only certain crops at the expense of others, and that dumping American surplus products on foreign countries would bring resentment and retaliation from them. Congress was unable to pass the measures over the President's veto. The administration supported a different plan, presented by Secretary of Agriculture Jardine, which encouraged and empowered cooperatives to work through stabilization agencies to control production. Herbert Hoover indorsed the plan during the campaign of 1928; after he became President, Congress in special session in June, 1929 established a Federal Farm Board under the Agricultural Marketing Act, which bought, sold and fixed prices of grain, cotton and livestock through cooperatives and stabilization corporations.



Pictorial Statistics, Inc. From Hacker, Modley, Taylor, "The United States, A Graphic History," Modern Age Books, Inc.

CHANGES IN HIGHWAY TRANSPORTATION

Each horse and carriage represents ten million horses. Each motor vehicle represents three million motor vehicles. Distance between milestones represents 500,000 miles of road—the dark part is surfaced.

CHAPTER XXVII

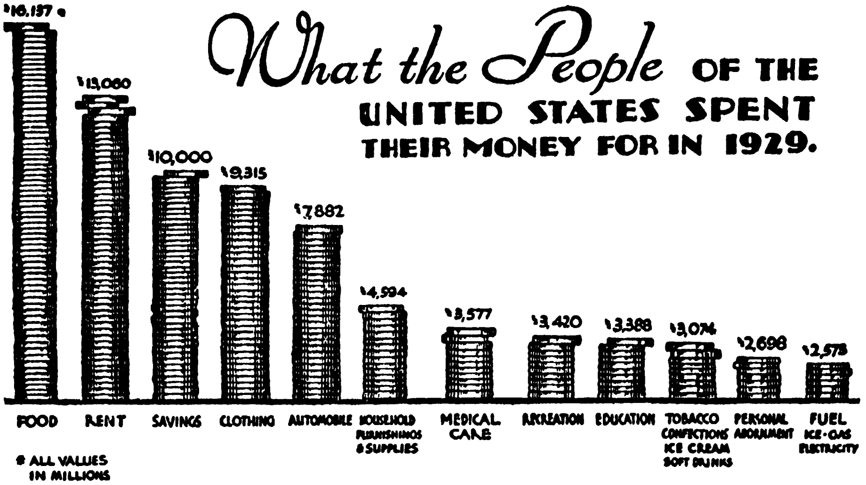
The United States in a World-Wide Depression

Background of the Depression

The depression which began in the United States in 1929 was world-wide. Its causes must be sought in the confused domestic and international conditions which grew out of the First World War. Reparations and war debts added to the problems of the period when every attempt was being made to adjust the industrial, financial and commercial relations of the chief nations of the world to changed conditions. Inflation in Germany, serious unemployment in Britain, and the plight of the coffee market in South America were symptomatic of the ills of the world prior to economic collapse.

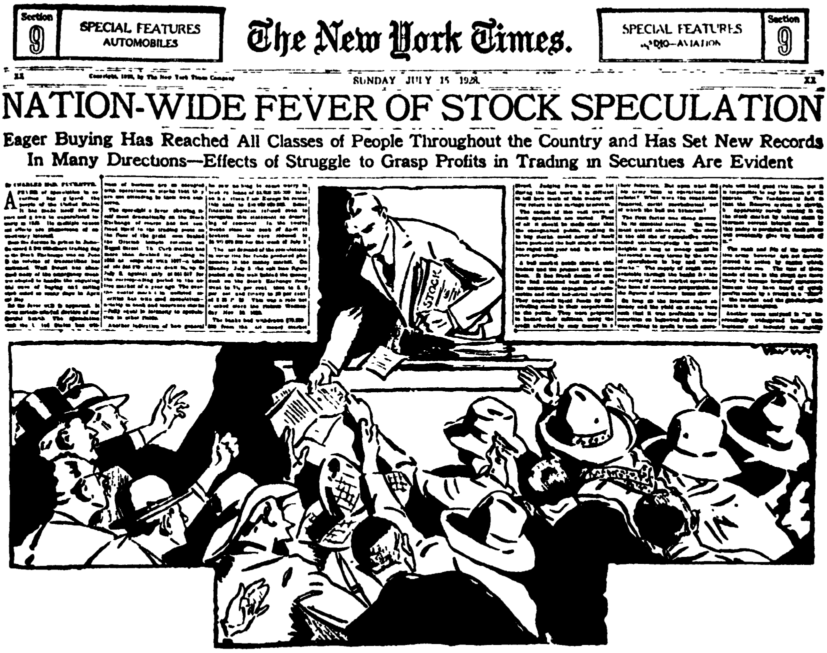
In the United States, the six years before the collapse were in general extremely prosperous ones, except for agriculture and a few industries that did not enjoy the wealth of the period. Increasing technological unemployment was also hidden in the mad rush for prosperity. During the decade of the twenties people bought relatively less food and clothing than before the war, but the sale of automobiles, electrical appliances, radios, refrigerators and other "durable goods" sky-rocketed. This so-called higher standard of living was made possible not only through the efficiency of the machine age, but also because of the extended use of credit, one of the most potent instruments of modern capitalism. Instead of controlling credit most groups abused it. The seller made installment buying easier and easier — but less sound; the buyer became contemptuous of self-denial and more concerned with his comforts and pleasures. As a result, debt accumulated much faster than wealth expanded. By 1930, the debt of the country had increased to one-third its wealth.

The period was also one of speculation. Millions of Americans had become familiar with the procedure of investment through their purchases of Liberty Loan bonds during the war and the most venturesome had tried to emulate stock exchange traders as they bought "war babies" and other speculative stocks. In the period that followed, the public, spurred by visions of dazzling gains, became interested in the operations of the stock market. Not only were conservative investments sought in a period when wages were good, but the speculative urge moved those even in the lowest stations of life to purchase good and bad stocks on margin. From 1927 to 1929 prices on the stock exchange soared. Clerks, workingmen and shopkeepers joined financiers and capitalists in buying securities that they felt sure could be sold at a profit. Professional men as well as the most lowly workers staked the painful savings of years on stocks that seemed sure of doubling their money within a short time. As a result of public participation in the stock market, brokers' loans increased dizzily; the prices of stocks rose out of all relation to dividends; financiers floated new securities to meet the demand — to the amount of $666,839,000 in 1929 alone; securities were mercilessly watered, millions of shares changed hands daily; profits were attracted into the market instead of to consumption; and foreign investors aided the movement while at the same time Americans sunk billions in foreign governmental and private securities. Rising prices, favorable corporation reports, the expansion of the automobile and other new industries, and heedlessness to the growing inflation gave the speculators a feeling of security. Bankers, manufacturers, and even economists interpreted the movement as the beginning of a new era to which the old rules of sound investment could not be applied. But a day of reckoning soon was at hand.



Courtesy of the Julius Rosenwald Fund, Chicago

To most people, the stock market panic of October, 1929 came with dramatic — and tragic — suddenness. Yet the collapse of several land booms in different parts of the country, especially the one that ended the madness of land speculation in Florida in 1926; the failure of one-fifth of the nation's banks (6,000), chiefly in farm communities during the gilded decade; the suffering of several vital industries in addition to agriculture; technological unemployment, which was dislocating workers in many manufactures; increasing defaults on private debts; and the lag that was developing by 1928 in the building, steel, automobile, and oil industries, were all danger signals to which political leaders and the public alike remained blind as they envisioned a future utopia of great material splendor.



Section 9 SPECIAL FEATURES AUTOMOBILES

The New York Times.

SPECIAL FEATURES RADIO—AVIATION Section 9

XX Copyright, 1928, by The New York Times Company SUNDAY JULY 15 1928 XX

NATION-WIDE FEVER OF STOCK SPECULATION

Eager Buying Has Reached All Classes of People Throughout the Country and Has Set New Records In Many Directions—Effects of Struggle to Grasp Profits in Trading in Securities Are Evident

From "The New York Times," July 15, 1928

THE DANGEROUS AND FANTASTIC GAME OF WALL STREET

The Stock Market Panic of 1929

The trend of prices on the stock market had been upward since 1924. Recessions were not serious and even those that occurred were taken by the speculating public as simply an idiosyncrasy of the market to be inevitably corrected within a short period of time. In 1927, the Federal Reserve System began an easy money policy by reducing discount rates, partly to aid business and to help foreign nations in their relations with the United States. Unfortunately, this policy encouraged increasing speculation which did not need encouragement. Prices of stocks rose with alarming rapidity. The next year, the Federal

Reserve Board tried to correct the situation by raising the discount rate. By December, its call-loan rate reached 8.6 per cent. But speculation in stocks continued unabated. Direct pressure was brought to bear on member banks not to increase their loans to aid brokers. Loans were reduced but it did not break the speculative mania. It had become impossible to hold back the frenzied tide.

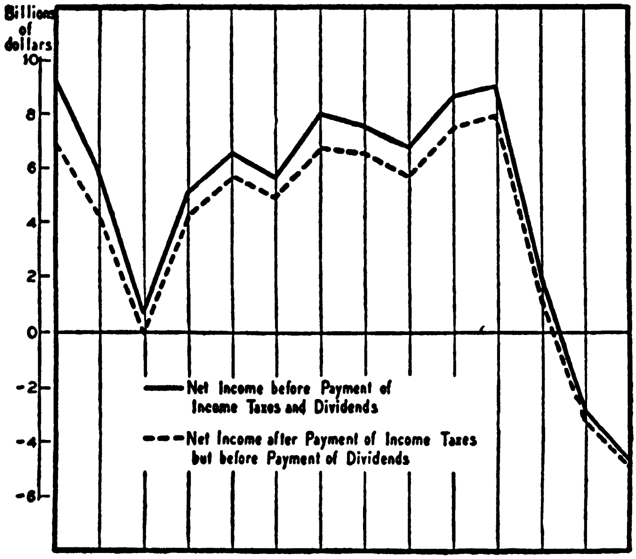
Throughout the spring and summer of 1929 there were general recessions and also declines in certain stocks at various times. But the crash did not come until October 29, 1929. On that day high grade securities went tumbling down in the same manner as bogus mining stocks and more than 16,000,000 shares changed hands. Stock of the General Electric Company dropped forty-seven points; American Telephone and Telegraph Company, thirty-four points; and Westinghouse Electric and Manufacturing Company, thirty-five points. The stock exchanges of the country closed but were opened in a few days. Meantime, the bankers formed a pool to support the market. While temporarily successful to a certain degree, the bull market was ended and the trend continued downward until prices reached an appalling low in 1932. But in 1929, United States Steel Corporation common stock, which had reached a high of $261.75, fell to $150; American Telephone and Telegraph Company stock fluctuated between $310.25 and $193.25, while Westinghouse Electric and Manufacturing Company stock ranged from $292.50 to $100.

The panic of 1929 differed from earlier ones in that no money panic ensued. It was exclusively a stock market panic. The New York banks together with the Federal Reserve Bank met legitimate demands for credit. Liquidation was carried out in as orderly a manner as the terrible collapse in the prices of securities would permit. The catastrophe marked the end of an era in which many had lived in a fool's paradise. A new period followed during which painful adjustments had to be made.

The crash in the stock market began the impoverishment of millions of Americans, the demoralization of business, and the growth of unemployment which finally reached proportions unknown before in the United States. Other nations also experienced the misery and suffering of acute depression at the same time. European countries had been staggering under great burdens of debts and taxation since the war. Depleted gold stocks and adverse trade balances had operated against recovery and now added to the problems of the depression. The unbalanced world economy had been partly responsible for the collapse and it also operated to prevent quick recovery. Economic distress was world-wide.

Into the Depression

The crash of stocks at the beginning stripped American speculators and investors of about $25,000,000,000, not including their foreign losses. Most of these, however, were paper losses, for their actual value never existed. But many individuals lost their life savings and investments. Following the stock market panic, the long depression began. Factories closed down, an increasing number of banks failed, prices of commodities sank, foreign trade languished, railroad loadings declined and railways became insolvent, unemployment increased, and bread lines lengthened. Paralysis struck the nation's buying power. Farmers and factory workers, creditors and debtors, capitalists and brokers, all suffered. Every part of America's great economic machine was severely affected as it slowed down to a halt.



Courtesy of the National Bureau of Economic Research

THE DROP IN EARNINGS

Aggregate net income of all corporations in the United States from 1919–1932

The attitude of most leaders, including President Hoover, was that the depression was temporary and would pass away in a few months or at most in a year or two. They felt that fundamental business conditions were sound and on a prosperous basis. Later in 1929, the President held a conference in the White House with leaders of industry and business. He announced plans for the formation of an organization representing industry, trade and commerce to carry out a policy of stabilization to prevent future financial crashes and business disturbances. But the steps taken were not of lasting worth. "Collective self-help" was a part of the President's program. He urged industrialists and business to carry on in spite of lack of markets because he believed that recovery "was just around the corner." What was needed, he asserted, was confidence and a continuance of business. But conditions got worse instead of better.

More than two painful years passed before the realities of the situation were accepted. In 1930–1932, bank failures numbered 5,102, a new record. In 1930, more than 3,000,000 workers were unemployed; in 1932, 12,000,000 were out of work. About one-fifth of the railroad mileage of the country was in receivership. Falling prices showed overproduction, yet one half the nation found it difficult to get even the necessities of life. The problem of distribution appeared to be unsolvable. Morale was at is lowest when homes, farms, jobs, businesses, and bank deposits were lost.

The government, also, was in serious financial difficulties. Since the passage of the Budget and Accounting Act in 1921, which had long been advocated and which applied strict business principles to government financing, much had been done to reduce taxes and to pay off a large part of the public debt. By 1930, the debt had been reduced to $16,000,000,000. Many believed that it should have been reduced further, but tax legislation was predicated on the assumption that foreign debts owed to the United States would be paid. The per capita debt in 1914 stood at $9.88; in 1919, at the end of the war, at $288; and in 1930 at $134. But income never caught up with outgo. A low point in government economy was reached in 1925 when the biennial appropriations were reduced to $7,935,000,000. Programs for flood control, dams, and waterways increased expenses in the years that followed. By this time, the sources of taxation had changed. In 1908, 47.7 per cent of the public revenue was obtained from custom duties and 40 per cent from internal revenue; in 1928, because of war and post-war conditions, 14.7 per cent came from customs and 68.78 from internal revenue.

As the depression came on, the revenues of the government began to decline and its expenditures to increase. In addition to relief measures and other requirements of the depression, Congress had to face large deficits in revenue. It rejected President Hoover's proposal to save money by reducing the salaries of government officials and it opposed a general sales tax. Instead Congress sought to solve this problem by increasing income tax rates, by raising postage rates, and by taxes on amusements, bank checks, gifts, stock sales, automobiles, gasoline, oil, tires, matches, refrigerators, and on many other things. But the problem of balancing the budget was not solved at that time nor in the period that followed.

Panaceas

As the depression increased in intensity, plans were put forth by various groups to solve economic problems that would not only relieve the current misery, but in time would usher in a utopian society. One of the chief of these in this period was given publicity through the technocracy movement that originated in 1931–1932. Its ideas were not new. In 1923, Thorstein Veblen in a book, *The Engineers and the Price System,* stressed the growing breach between the increasing capacity of mechanized industry and the problems of actual production and distribution under the profit system. In this work and in earlier ones Veblen insisted that a distinction be made between industry and business — the former making goods, the latter enabling stock promoters, financiers and absentee owners to prey on the population. Veblen's solution placed the control of production and distribution solely in the hand of technicians.

During the depression, a group led by Howard Scott, calling themselves technocrats, made a survey of the machines of production and found evidences of undercapacity output; they also came to the conclusion that technological unemployment was bound to increase. Neither "discovery" was new. Their "findings," that under the wage system labor was unable to buy all the goods it produced, had been pointed out many times by economists and others. No definite program was suggested by them for the problem of distribution, but the public was kept interested and curious by the mystery that the group sought to throw around its "findings." It became evident that there was little really new in the ideas of technocracy and the movement finally subsided. Other "share the wealth" movements rose and fell. Among these were the Townsend Plan, Senator Huey Long's Share-our-Wealth clubs, Father Coughlin's National Union for Social Justice, William Lemke's Union party, and Upton Sinclair's EPIC (End Poverty in California). None of the radical proposals of these organizations was enacted into law although many of them were backed by large groups in various parts of the country. But they showed that the masses were seeking remedies in a situation that seemed hopeless.

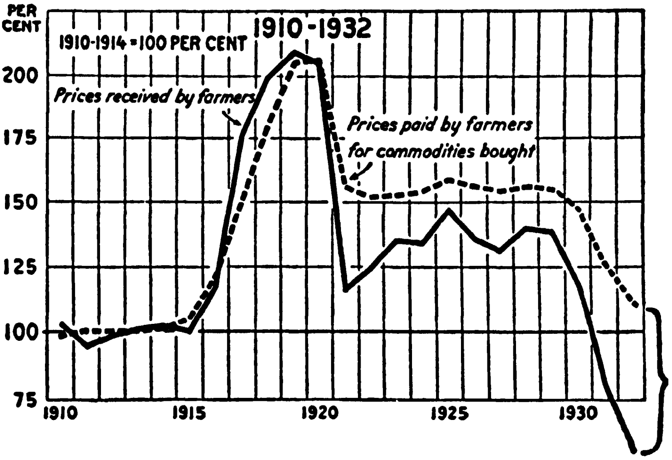
Government Remedies

Even before the depression, the Hoover administration had planned to aid farm distress in accord with the party pledge. A special session of Congress enacted the Agricultural Marketing Act in June, 1929, and the Federal Farm Board, backed by a revolving fund of $500,000,000, was created. The law aimed to provide agriculture with a mechanism for the orderly marketing of farm crops comparable to such mechanisms in other industries. To accomplish this the board was authorized to encourage cooperatives and to establish stabilization corporations. By the end of 1929, the board became most concerned with the maintenance of prices. It created a Grain Stabilization Corporation and a Cotton Stabilization Corporation to purchase and hold wheat and cotton in an attempt to halt the downward trend of prices in these commodities. By the close of 1931, the attempt to stabilize the two great staples had failed. Of $377,737,000 spent in market purchases, one-half was lost through declining prices, while storage charges threatened to consume the remaining equities in the commodities. The attempts to raise prices of other products by buying surpluses and withholding them from market met with the same failure. By 1933, most of the $500,000,000 revolving fund had been spent or pledged, partly in a vain attempt to stabilize prices and partly in loans to cooperatives, chiefly to help them carry out holding operations. The attempts of the board to induce farmers to cut down production also failed. The world-wide depression completely interfered with the government attempt to increase prices by withholding surpluses. In 1932, with mounting surpluses and stagnant markets, Congress discussed production control and other plans which were incorporated later into New Deal legislation. Aid was granted to the farmers in 1932 when Congress amended the Federal Farm Loan Act of 1916, which among other things provided for a loan of $125,000,000 to the Land Banks. The Reconstruction Finance Corporation also advanced money to farmers to save their farms through the agency of regional agricultural cooperatives.

The Hawley-Smoot tariff of 1930 was passed largely as the result of the depression in agriculture. In his message to the special session of Congress the year before, President Hoover stated:

> An effective tariff upon agricultural products . . . has a dual purpose. Such a tariff not only protects the farmer in our domestic market, but it also stimulates him to diversify his crops and to grow products that he could not otherwise produce, and thus lessen his dependence upon foreign markets.

After months of debate during which strenuous attempts were made to add further protection to certain manufactures, and after much logrolling, Congress passed the measure. President Hoover found flaws in the bill, but signed it because he believed the defects could be corrected through the President's power to revise rates. He gave it his approval in spite of the fact that more than 1,000 economists urged him to veto it on the grounds that it would raise prices, interfere with the payment of the war debts, reduce exports, and force foreign nations to retaliate in a like manner. The new law provided for increases not only in the agricultural schedules but in many others, such as textiles and clothing. It was a much higher measure than that of 1922. The tariff commission was increased to six members and through its work the President hoped to reduce excessive rates and to take the tariff out of politics. But almost immediately after its passage, foreign governments passed retaliatory measures. Within two years, more than twenty had done so and others were threatening similar action in order to force the United States to abandon its prohibitory rates.



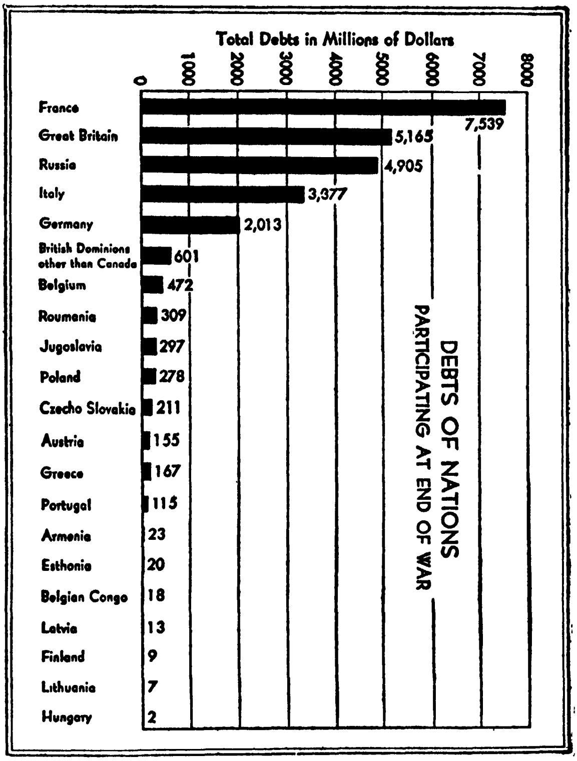
Graph Showing the Difference in Prices Received by Farmers for Their Products and Those Paid by Them for Goods Bought

As times grew worse, relief appropriations were made by Congress. A great program for the construction of roads, public buildings and airways was begun late in 1930. Many measures were signed by the President for emergency construction and farm loans. Large sums were also appropriated for drought relief, for a heat wave and drought in 1930 had ruined the corn, hay and other crops and had killed livestock on thousands of farms, especially in the Middle West. Vast loans were made to states, cities, and other governmental agencies for constructive projects and direct relief. In order to aid and protect sound banks a National Credit Association was established by the government with resources of $500,000,000. The first Glass-Steagall Act of 1932 also permitted member banks of the Federal Reserve System to borrow on collateral not normally eligible for rediscount in order to provide increased credit for businessmen. It also permitted Federal Reserve banks to use United States government obligations as security for Federal Reserve notes. In the same year a system of Home Loan banks was also established to discount home mortgages held by banks, building and loan associations and insurance companies. The plan was enlarged in 1933.

A most important step was also taken when the Reconstruction Finance Corporation was created by act of Congress in 1932. The chief aim of the corporation was to encourage and aid financial institutions to lend money in order to revive business and industry. The decline of prices of commodities, securities, and real estate left banks and credit institutions with loans on their books which could not be paid immediately but which would be good in time. Thus the corporation was established to aid solvent banks that lacked liquid assets which could be readily turned into cash without loss. It was authorized to lend to banks of all kinds, building and loan associations, mortgage companies, insurance companies, agricultural credit corporations, states, and public agencies. It could also aid in temporarily financing railroads which could not secure funds on reasonable terms in other channels, providing the Interstate Commerce Commission approved.

The Reconstruction Finance Corporation, under a board of seven directors, including the Secretary of the Treasury, and capitalized at $500,000,000, was authorized to sell a maximum of $1,500,000,000 worth of five-year bonds or notes to the public or to the United States Treasury. The loans that were made aided many banking institutions and industrial concerns to weather the storm. But some corporations that it helped were enabled to continue dividend payments on watered stock when they should have been liquidated. In spite of all that the corporation did to patch the economic structure, it met with little success. Bank failures declined during the months after it was established but, by the end of 1932, the banking situation had become exceedingly grave. In the meantime, the corporation was assailed by many groups. Some congressmen protested against loans to railroads which paid excessive salaries to its officials; certain policies that it was developing were attacked; and public confidence was undermined when it became known that, before retiring as its president in 1932, Charles G. Dawes arranged for a large loan to his own bank in Chicago. Thereafter loans were not made in secret.

Before the end of its first year, the Reconstruction Finance Corporation loaned more than $1,500,000,000 to 6,000 borrowers in all parts of the country and in some of the dependencies and outlying possessions.



War Debts and Reparations

One of the most serious and complexing questions after the war was that of the war debts owed by the Allied governments to the United States. This was bound up with the problem of reparations required from Germany under the terms of the Treaty of Versailles, for the debtor nations planned to pay the debts with the indemnities received, although the United States never recognized any relationship between the two. Within a few years, the economic collapse of Germany prevented payments that were due after approximately 10,500,000,000 gold marks had been paid, according to the Reparation Commission, although the Germans insisted that the sum far exceeded this amount. The United States received none of this. However, payment was made for the expenses of the Army of Occupation, for damage done within the United States, and for other claims.

As early as 1922, Congress created a World War Foreign Debt Commission to refund the original debts without reference to the question of German reparations. It was planned at first that there should be no reduction in principal, that interest should not be less than 4½ per cent, and that all should be paid before 1947. France refused to discuss such terms and joined the other Allied nations in asking for the general cancellation of the debts. The Commission refused to listen to the pleas, but agreed to reduce the indebtedness of each country on the basis of ability to pay; it also extended the annual payments over a long period of time with low interest rates. Plans were made with Great Britain in 1923, and by 1930 seventeen of the twenty indebted nations agreed to refunding plans. Payments were extended over a period of sixty-two years and interest rates varied from 3.3 per cent in the case of Great Britain and a number of other countries to 1.6 per cent for France and 0.4 per cent for Italy. The debts were scaled down to 80.3 per cent for Great Britain and to 47.2 per cent and 24.6 per cent for France and Italy respectively. Even with the reductions the total debt remained a tremendous one — equal to the amount of United States government war bonds outstanding.

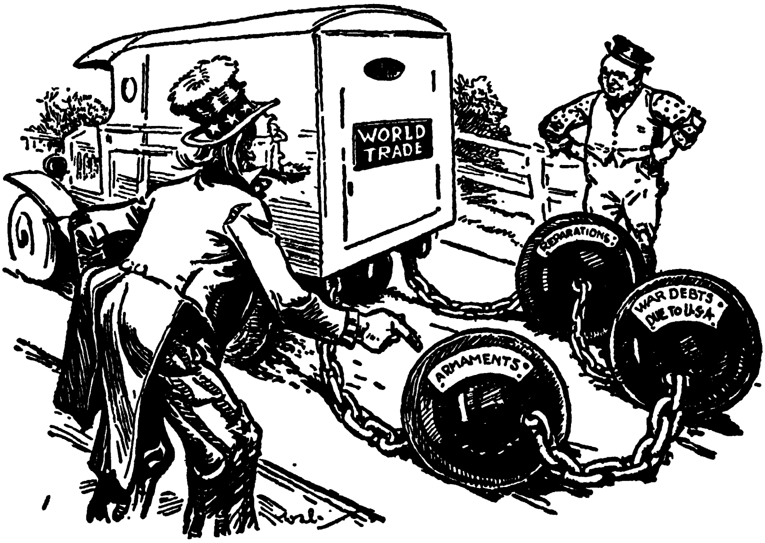
When Germany found it impossible to pay the indemnities and defaulted in 1923, the Ruhr was occupied by the French. The debtor nations made it clear that they could pay the United States only what they received from Germany. A group of experts, including two Americans, was appointed to devise a plan of payments that Germany could meet from year to year. The Dawes plan (1924) was accepted by the Reichstag. It gave Germany a moratorium of one year, provided for the continuance of annual payments on the basis of German income, reduced the reparations payments, and advanced a loan of about $200,000,000 to aid Germany's economic recovery. French evacuation of the Ruhr followed. A renewed likelihood of German bankruptcy produced the Young plan (1929), which was suggested by another international commission with another American, Owen D. Young, as chairman. The plan scaled down the total remaining indebtedness to $27,500,000,000, to be paid in installments over a period of fifty-nine years. If the United States cut down the amounts due from her debtors, the amounts due from Germany to her creditors were to be correspondingly cut. In spite of the official American attitude, war debts and reparations had been very cleverly tied together. The plan was put into effect, but Secretary of State Stimson warned that the United States did "not desire to have any American official. directly or indirectly, participate in the collection of German reparations." Largely to transfer reparation payments from Germany to the Allied Powers, the Bank for International Settlements — predicated on the Young report and evolved from the Hague Agreement (1930) — was established, receiving its charter from Switzerland in 1930. It was given important banking powers in dealing with central banks and was also intended to promote additional facilities for international financial operations and to act as trustee in international affairs. Stockholding banks were scattered all over the world including the First National Bank of New York and the Industrial Bank of Japan, Tokio.

Political conditions in Europe mitigated against the Young plan. In the German parliamentary elections of 1930, the unpopularity of the plan was revealed by the spectacular gains made by the National Socialists and the Communists. Foreign creditors, particularly the French, became alarmed at the increasing power of the two groups of extremists and began to withdraw their funds from Central European banks. Collapse threatened Germany as foreign trade dwindled, manufactures decreased, unemployment increased, and business failures became more numerous. Emergency decrees in that country provided for reduced taxes and rigid governmental economies, but all efforts failed to prevent disaster. Early in 1931, Germany and Austria attempted to form a customs union or *Anschluss* to arrest the paralysis that was stifling their economic life. France and other European countries objected and withdrawals from Austrian banks increased. Soon the Credit-Anstalt Bank was in difficulties, and to prevent its collapse, the Austrian government guaranteed the bank's deposits. The Bank of International Settlements extended credit to the amount of $14,000,000 to the Austrian National Bank. In July, 1931, the Danat Bank of Berlin closed its doors and other German banks followed. The withdrawal of foreign credits had a disastrous effect on London, the world's financial center, and England abandoned the gold standard in September, 1931. Other countries suspended specie payments.

The financial collapse of Germany and Austria gravely affected the United States. It injured many American firms and New York banks doing business with those countries; it induced a serious decline in the bond market; it caused foreign investors to withdraw their funds from the United States; it shook public confidence as bank failures increased; and it forced panicky citizens to withdraw their deposits and hoard gold in safe-deposit boxes.

In the meantime, on June 20, 1931, President Hoover, following the receipt of an urgent letter from President von Hindenburg of

Germany, proposed the "postponement during one year of all payments on intergovernmental debts, reparations, and relief debts, both principal and interest, of course not including obligations of government held by private parties." He hoped that such action would promote a world-wide restoration of confidence and economic stability. Other nations agreed. Congress approved, but refused to accept a suggestion by the President that the World War Foreign Debt Commission be revived to examine the whole question again. Financiers and economists predicted that resumption of payments after the moratorium would encounter insurmountable objections in debtor countries. This came true as an epidemic of defaults occurred. In December, 1932, only six nations made payments. Then followed "token payments" and finally only Finland met her small annual debt.

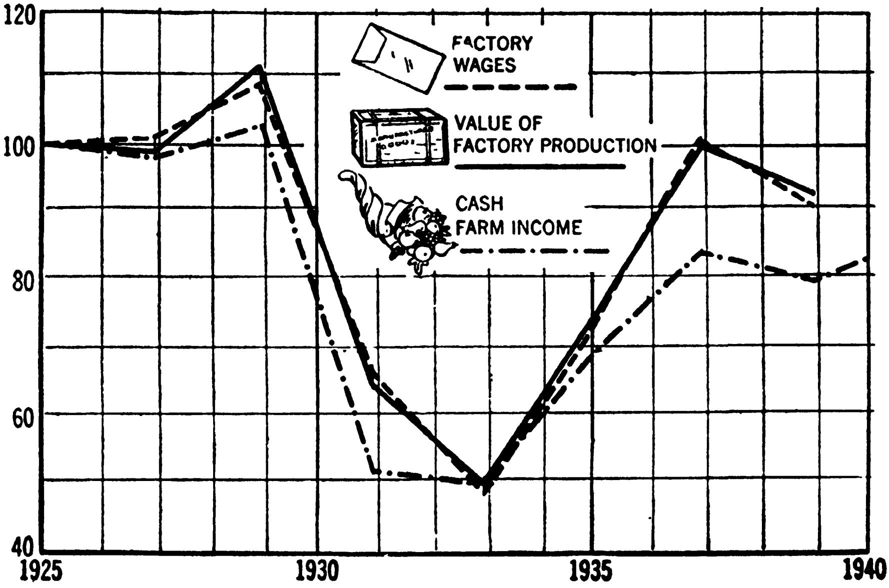


BALL AND CHAINS THAT DRAG

The hindrances to world recovery as viewed by *The News of the World* (London)

In 1932, Germany's creditors reached an agreement at Lausanne, suddenly reducing her indebtedness from billions to millions and fixing it at $714,000,000. This caused much excitement in the United States where the government was charged with having made a secret agreement with Germany's creditors that the war debts were to be cancelled. This, however, was officially denied by the Secretary of State. On the same day, Prime Minister Ramsay MacDonald in England made a similar denial in the House of Commons.

Various opinions were expressed in the United States about the war debts. Some suggested further postponement until stable conditions returned; others insisted on further reductions; many saw wisdom in cancellation since Allied nations had little gold and since payment in commodities would have interfered with American production. On the one extreme were those agreeing with Calvin Coolidge, who when asked his views on the subject replied: "They hired [borrowed] it, didn't they?" Extremists on the other side favored the view held by Andrew Mellon when he was Secretary of the Treasury that cancellation would be the best course for American economic interests in order to keep the European nations prosperous customers of the United States. The Second World War put an end to the question, at least for the time being.



Courtesy of the National Association of Manufacturers

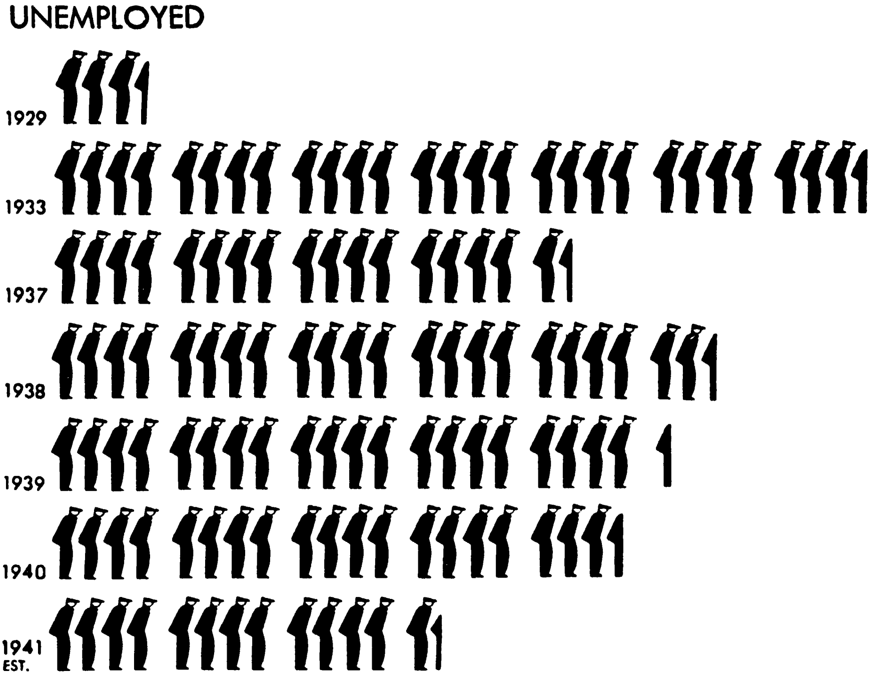
Factory and Farm Income, 1925–1940

The Depth of the Depression

The lowest point of the depression was reached late in 1932 and early in 1933. Economic conditions had grown steadily worse in the three years of deflation following 1929. Unemployment had reached a peak conservatively estimated at 12,000,000, although some placed it at 15,000,000. Home building had ceased. Families had doubled up or moved to rural sections. Young people without purpose traveled aimlessly over the country. Several hundred cities faced imminent bankruptcy as their revenues fell. Prices were at their lowest level. More than ever before the paradox of huge surpluses of food and clothing at a time when millions suffered for lack of these essentials became more and more evident. Many groups were demanding increased government action. Thousands of farmers especially in the Middle West, whose farms were being foreclosed, together with large numbers of insolvent businessmen, sought help. Veterans of the World War demanded immediate payment in full of the insurance policy bonus voted them in 1924. Congress had passed over Hoover's veto in 1931 a bill permitting the veterans to borrow up to 50 per cent of the value of the bonus, but this proved insufficient. The next year, after a measure granting them immediate cash failed in Congress, the "Bonus Expeditionary Force" of 20,000 veterans marched on Washington and was expelled by bayonets and tear gas. In the midst of general despondency and suffering, the banking structure of the country threatened to collapse.

Meantime the presidential election took place. Of those who went to the polls almost 23,000,000 cast their vote for a New Deal, although nearly 16,000,000, apparently less affected, voted for Hoover. However, the Democratic party was generally successful everywhere. The House of Representatives, which had a majority of Democrats in the second half of Hoover's administration, was now Democratic by almost three to one. Only eight Republican governors were elected in the states. It was a political revolution. Democratic leadership was given a mandate to solve the economic problems that involved everyone and to free the country from the worst depression that the world had ever experienced.

Before the inauguration of President Franklin D. Roosevelt the banking situation grew even worse. After the election, bank runs increased, failures grew larger, and financial conditions deteriorated. Even the oldest and most conservative banks were no longer immune. Republicans ascribed the condition to the refusal of the partly-Democratic Congress to adopt Hoover's proposals for banking reform. In January, 1933, it was revealed that total bank resources had fallen from $74,000,000,000 in 1930 to $57,000,000,000 in June, 1932, while in 1931–1932, deposits had decreased by $12,000,000,000. Exposures of corruption, dishonest practices, and unscrupulousness by some bankers and financiers as well as by some public utilities companies, brought to light by Congressional Committees, also served to undermine public confidence still further. Most shattering were the disclosures which followed the collapse of the huge pyramid of utility corporations built up by Samuel Insull. As a result of conditions the public increased the withdrawal of deposits to such an extent that governors in many states were forced to declare bank holidays. By March 4, 1933, most of the banks had closed. Never in the history of the country had a President been inaugurated under more difficult and serious economic conditions.



UNEMPLOYED

Each symbol represents 500,000 unemployed

PICTOGRAPH CORPORATION

STATISTICS OF UNEMPLOYMENT, 1929–1941

CHAPTER XXVIII

Economic Activities of the New Deal

The New Deal

As outlined in his political campaign, President Roosevelt's program revolved around the three R's — Relief, Recovery and Reform. He had promised the country a New Deal and had explained what he meant by the slogan. It included among other things the need for economic planning, for agricultural improvement, for greater regulation of public utility and holding companies, for changes in the tariff, for the curb of speculation, and for national and international unity. The proposals made during the days of the campaign were less drastic than the plans that were actually carried out in the years that followed. This was because of the needs that grew out of the emergency and because of President Roosevelt's developing views, influenced by a succession of advisers. In his inaugural message, the new President stated:

> . . . The only thing we have to fear is fear itself. . . . Values have shrunken to fantastic levels; taxes have risen; our ability to pay has fallen; government of all kinds is faced by serious curtailment of income; the means of exchange are frozen in the currents of trade; the withered leaves of industrial enterprise lie on every side; farmers find no markets for their produce; the savings of many years in thousands of families are gone. More important, a host of unemployed citizens face the grim problem of existence. . . . We must act and act quickly.

The President began work immediately. He used liberally his executive authority and asked Congress for further "broad executive power to wage a war against the emergency as great as the power that would be given me if we were in fact invaded by a foreign foe." He received additional power, which added much to the prestige and strength of the executive branch of government, but the authority granted him was not equivalent to that of wartime. In his work of devising recovery measures and projecting a planned economy, he was aided by the "brain trust," a group of men of liberal views, with experience especially along professional and business lines. He called Congress in special session, which, from March 9 until it adjourned on June 16, adopted legislation unprecedented in American history, not only from the point of view of its bulk but also its liberal content. These laws formed the basis of the New Deal.

Banking and Financial Legislation

Immediately on taking office, President Roosevelt ordered all banks closed temporarily and placed an embargo on the exportation of gold. The breathing space gave time to formulate a program. Congress provided for the reopening of banks that were able to resume operations. The Emergency Banking Act of March 9, 1933 permitted banks belonging to the Federal Reserve System to reopen if their condition was found to be satisfactory and a license was obtained from the Treasury Department. Banks discovered to be insolvent were placed under conservators for restricted operation or liquidation. Additional Federal Reserve bank notes were to be issued to member banks and Federal Reserve banks could make private loans on the security of government bonds. The Reconstruction Finance Corporation was authorized to subscribe to the capital stock of banks and trust companies. The law also authorized the Treasury to call in all gold and gold certificates. Under the terms of the Emergency Banking Act, banks were reopened beginning on March 13. By March 15, banks controlling 90 per cent of the banking resources of the country were again in operation and the seriousness of the banking crisis was over, although some banks never reopened and many were restricted in their operations.

A permanent banking law followed. The second Glass-Steagall Act of June, 1933, provided for a stricter supervision of member banks of the Federal Reserve System; it curbed credit in stock market speculation; it divorced the banks from their security-selling affiliations; it approved branch banking in those states where it was permitted; and authorized the creation of a Federal Deposit Insurance Corporation (FDIC), for insuring bank deposits from July 1, 1934. In the meantime a Temporary Deposit Insurance Fund was established. Under the Banking Act of 1935, the deposit insurance provisions were amended to insure the deposits of all banks entitled to benefits to a maximum of $5,000 for each depositor in each bank. The FDIC was authorized to purchase, hold and liquidate the assets of national and state banks that had been closed. The act also reorganized drastically the Federal Reserve Board and changed its name to the Board of Governors of the Federal Reserve System. Changes were also made in the management of the Federal Reserve banks. Power over discount and open-market operations of the banks were increased and centralized in the Board of Governors.

Closely associated with banking legislation were the plans to establish control over the stock exchanges of the country through the regulation of the sale of stocks and other securities. In 1933, Congress passed the Federal Securities Act (FSA) and the next year supplemented it with the Securities Exchange Act (SEA). The administration of the first law was entrusted to the Federal Trade Commission. The act of 1934 set up a new organization known as the Securities and Exchange Commission to administer both laws. The Commission was authorized to supervise the activities of all stock exchanges. It was charged with the duty of protecting the public against deceit, trickery and fraud in the purchase and sale of securities. It was required to see that all proposed issues of stocks and bonds were registered and to insist that true information be furnished investors. In 1938, the authority of the Commission was extended to "over the counter" stock sales. As a result of the work of the Commission, speculation was curbed to a great extent.

While order was being brought out of the chaos in banking, problems connected with the gold standard were being attacked. The chief objective in the changes that took place was to bring about a controlled inflation in order to force prices upward. The President's several proclamations together with the recall by the Treasury of all gold and gold certificates and the joint-resolution of Congress on June 5, 1933, which abrogated the payment of all debts in gold, whether public or private, virtually suspended the gold standard.[1] Until the end of January, 1934 when the Gold Reserve Act was passed, the country was on a depreciated paper money basis as the coinage and circulation of gold were discontinued. The Agricultural Adjustment Act of May, 1933 authorized the President to make radical changes in the currency system, including the devaluation of the dollar in terms of gold in order to increase prices. In the fall of 1933, the Warren Gold Purchase plan was put into operation. The Reconstruction Finance Corporation was authorized to buy gold newly mined in the United States and also, if necessary, in world markets at prices to be determined after consultation with the President and the

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[1] Even the ownership of gold coins, gold certificates and gold bullion became a criminal offense. In the Gold Clause cases (1935), the Supreme Court upheld in general the action of Congress, although in the case involving the payment of Liberty bonds, it declared the action of the government unconstitutional, but refused the plaintiff damages on the ground that he had not shown any loss of buying power in receiving paper money rather than gold.

Secretary of the Treasury. The initial price was fixed at $31.36 an ounce but it reached $35 an ounce when the plan was ended on January 31, 1934. The theory of the project was to bring an increase in the domestic commodity price level by raising the price of gold. But it failed to achieve this, for the price index of commodities remained at 71 (1926 = 100) during October, November and December, 1933 and rose only one point in January, 1934.

The Gold Reserve Act of January, 1934, passed at the request of the President, nationalized all gold by ordering the Federal Reserve banks to turn over their supply to the United States Treasury. In return they received gold certificates to be used as reserves against deposits and Federal Reserve notes. It also authorized the President to devalue the gold dollar so that it would not possess more than 60 per cent of its existing weight. Roosevelt immediately fixed the value of the gold dollar at 59.06 cents. From the government's profit from the gold impounded, which amounted to $3,500,000,000, a stabilization fund of $2,000,000,000 was created to buy and sell gold, foreign exchange, and government securities in order to protect and regulate the credit and currency of the country by offsetting trade balances, speculation, and foreign influences.

In 1929, silver fell to unheard of levels. Demands for action from the silver bloc in Congress resulted in a flood of proposals to benefit the silver interests. President Roosevelt by proclamation ordered the Treasury to purchase 24,412,410 ounces of silver annually at 64.5 cents an ounce, although the market value was but forty-five cents. In 1934, when general price levels failed to rise as was expected, there were increasing demands for further inflation. In June, 1934, the Silver Purchase Act authorized the President to buy silver until the world price rose to $1.29 an ounce, to increase the monetary value of silver in the Treasury to one-third of the value of gold stocks, and to nationalize silver and regulate movements in trade. The government embarked on a program for the purchase of silver similar to its program for the purchase of gold. The price of silver jumped immediately to eighty-one cents an ounce, which weakened the currency systems of Mexico and China. Under the law, the government bought about $1,000,000,000 worth of silver from foreign countries at high prices. Most of it was deposited in government vaults, especially at West Point, just as most of the gold that was purchased was stored at Fort Knox, Kentucky. The tremendous increase of gold prevented the proportion of silver from reaching the one-third ratio with gold. The unprecedented purchases of gold and silver stimulated American trade in the few remaining world markets, but concentrated $16,000,000,000 of gold — over half the world's total supply — and a large proportion of the silver supply in the United States.

Relief and Aid to Workers

One of the calamities of the depression was unemployment with the resulting suffering of workers and their families. An Act of May, 1933 established the Federal Emergency Relief Administration (FERA). Prior to this, Congress had authorized the Reconstruction Finance Corporation to loan $300,000,000 to aid the states and their subdivisions for relief. Now the FERA took up the work. Under the direction of Harry L. Hopkins, the new agency attempted to alleviate the condition of the millions of unemployed. It functioned through the states, indirectly dictating their policies. Relief offices were set up all over the country and the federal and state governments worked together to supply food and clothing to the needy and destitute. The attempt was made to avoid the dole for individuals capable of working as labor projects were established. The FERA eventually granted about $3,000,000,000 to the states and territories as direct benefits or wages on work projects on public property. It also undertook a separate work program under the Civil Works Administration (CWA). After the FERA was disbanded in 1935, its functions were taken over in part by the Works Progress Administration (WPA), the National Youth Administration (NYA), and the Resettlement Administration (RA).

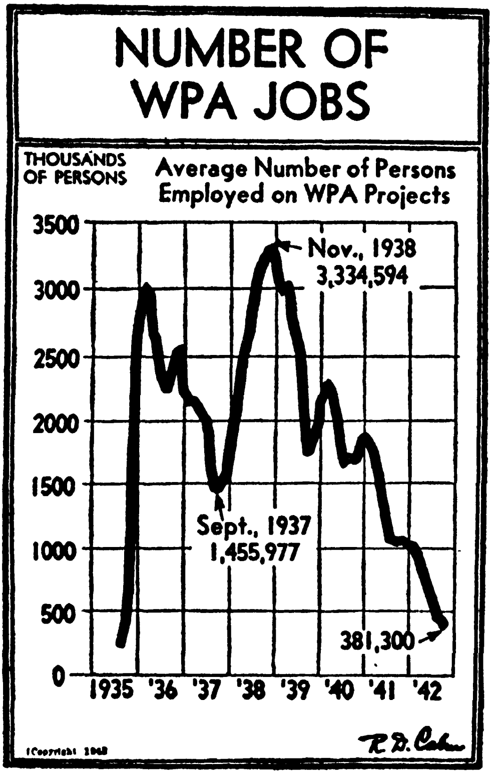
The Civil Works Administration was created by executive order in the desperate winter of 1933–1934. It planned to provide temporary work for about 4,000,000 persons at regular wages until they could be absorbed by private industry or the more permanent Public Works Administration. Its program included local improvements that would require a maximum of labor with a minimum of materials. It provided such work as laying sidewalks, patching streets, repairing and painting public buildings, improving parks and playgrounds, landscaping highways, erosion control and pest control. These projects were supervised by public administrators but payrolls were dispersed directly by the federal government. About $900,000,000 was spent on the undertakings which were ended in the spring of 1934.

Under the provisions of the National Industrial Recovery Act, the Federal Emergency Administration of Public Works (PWA) was established. Secretary of the Interior Harold L. Ickes was appointed as its head to administer a fund of $3,300,000,000 for a program of constructing public highways, buildings, and parkways, of conservation projects, and of general low-cost housing. Expenditures were made directly by the PWA or other federal agencies through grants to states and municipalities. The plan was intended to stimulate the private employment of idle machinery and non-relief labor in heavy construction work. Those who looked upon it as a pump-priming measure believed that it would create the necessary spur to business and industry. Others felt that it would reduce the severe fluctuations of the business cycle by increasing public employment in periods when private employment was decreasing. Some hailed it as the beginning of a movement in the direction of a planned economy. Of course, its immediate object was to grant aid and relief through a program of public works. In 1937, its slum-clearance and low-rent housing projects were transferred to the United States Housing Authority (USHA) and after July, 1939, emphasis was placed on self-liquidating projects together with loans to private enterprise.

A Possible Addition to the Line

A cartoon in *The New York Herald Tribune* on the costs of the many Government Relief Agencies

The Works Progress Administration (WPA) was created by executive order under the authority of the Emergency Relief Appropriation Act (ERAA) of 1935. In that year and in 1936 appropriations of more than $6,000,000,000 were made to finance more than 100,000 projects in different parts of the country. These included the construction of schoolhouses and other public buildings, the laying of streets and roads, and many other useful public works. The Administration carried out many enterprises in the field of adult education and it established a number of white-collar projects. The art projects in painting, sculpture, drama, music, and writing furnished employment to many. Difficulties were encountered in carrying out the WPA work. It was handicapped by the difficulty of finding projects that would not compete with private industry and problems arose because the majority of the workers were unskilled. Moreover, since the program was primarily one of relief, morale and discipline were often low. In 1939, the name was changed to Work Projects Administration and it became a part of the new Federal Works Agency. In 1942, President Roosevelt ordered the liquidation of the WPA, declaring that employment in war industries had reached a point "where a national work relief program is no longer necessary."



Courtesy of R. D. Cahn

Aid to Youth

In order to aid the large numbers of unemployed youth, many of whom were roaming the country, a Civilian Conservation Corps (CCC) was formed in 1933. It first absorbed 200,000 unmarried young men in need of employment, and then it was expanded. The enrollees received a cash allowance in addition to food, clothing, shelter, transportation, medical attention and education. Some acquired technical skills. They lived in camps and worked on reforestation, roads, trails, and drainage; they engaged in pest control, building erosion dams, and in fighting forest fires. Their work was carried on largely in forests, parks, and on agricultural lands. Enrollment was for a period of six months with a maximum service of two years permitted. By 1940, more than 2,000,000 men had served in the CCC in addition to 40,000 Indians and 20,000 living in the territorial possessions.

The work of the CCC well illustrates interdepartmental cooperation that was common among many agencies. The CCC cooperated in regard to conservation with the War, Interior, and Agricultural Departments and Veterans' Administration. In 1942, as the war effort consumed the activities of the nation, the CCC was abolished.

Chiefly in order to aid capable young people with part-time employment to enable them to pursue further academic, vocational, technical, or professional studies, the National Youth Administration was set up by executive order as a division of the Works Progress Administration. Later, it came under the jurisdiction of the Federal Security Administration. The NYA granted aid to thousands of high school, vocational, college and university students to prepare themselves for a future career and, at the same time, kept them out of the labor market in a period of general unemployment. The NYA also provided apprenticeship training and work projects for young persons not in school. It promoted vocational guidance and placement together with the extension of educational and recreational facilities for young people, especially in neglected areas. In 1942, its work was drastically curtailed, but certain projects necessary to the war effort were continued.

Relief to Home Owners

The Home Owners' Loan Corporation (HOLC) was created by the Federal Home Bank Board as directed by an act of Congress in June 1933. The corporation was owned and controlled by the government and was planned to refinance home owners who were threatened with the loss of their homes by foreclosure. It was authorized to loan up to 80 per cent of the appraised value of homes worth not over $20,000. Loans were made by exchanging bonds of the corporation for mortgages. By 1936, the corporation held more than 1,000,000 mortgages and had issued $3,000,000,000 in bonds, guaranteed by the United States. It ceased its lending operations in June, 1936, and after that date, engaged in the management of its mortgages and the maintenance and sale of properties acquired through foreclosure and liquidation.

In 1934 and 1938 by the National Housing Acts, the Federal Housing Administration was established. It was designed to aid economic recovery by stimulating certain industries and trades through small loans to householders for the purpose of financing alterations, repairs and improvements to real estate. "Renovate" became a familiar word as householders were urged to improve their properties. The FHA was also authorized to make loans to approved financial institutions in order that they might aid individuals to build or buy low cost homes on plans which provided loans of 80 or even 90 per cent of the value of the property and extending over periods up to thirty years. Provision was made for the government to guarantee repayment of such loans through a plan of mortgage insurance.

The first efforts in slum clearance and low-rent housing were made by the federal government in 1933 by the Public Works Administration, under the National Industrial Recovery Act (p. 625), when an appropriation of $150,000,000 for that purpose was made. But the primary reason for this expenditure was to put people to work. In 1937, the problem was approached directly from the point of view of improved housing when Congress created the United States Housing Authority (USHA) empowering it to make loans up to $500,000,000 to local housing agencies over a period of three years. It could loan up to 90 per cent of the total cost of a project at low interest rates. The USHA took over the work of the PWA in this respect and sponsored a number of projects in different parts of the country.

Relief to Agriculture

In spite of the efforts made during President Hoover's administration on behalf of the farmers, agricultural prices and rural property values continued to drop alarmingly. The debts of farmers increased; thousands were losing their farms; and the impoverishment of those engaged in agriculture meant a lessened ability of a large part of the population of the country to buy, adding to the distress of all. The Democrats had pledged the party in the platform of 1932 to the extension and "development of the farm cooperative movement and effective control of surpluses," as well as "the enactment of every constitutional measure to raise farm prices."

Under the leadership of the President and Secretary of Agriculture Wallace the administration approached the gigantic problem from two angles: (1) direct aid and adequate loans to farmers; and (2) the attempt to adjust farm production to market demands. A Farm Credit Act was passed early in the history of the New Deal (1933). The Farm Credit Administration (FCA) was set up as an agency to supervise the Federal Land Banks, the Federal Intermediate Credit Banks, the Production Credit Corporations, the Regional Banks for Cooperatives in each of the twelve Farm Credit Administration Districts, and, in 1934, the Federal Farm Mortgage Corporation. Credit facilities for farmers were thus grouped into four divisions under the Farm Credit Administration: land banks, production credit, intermediate credit, and cooperative credit.

Many laws were passed to carry out this aspect of the new farm policy. The Farm Relief and Inflation Act authorized the Federal Banks to issue $2,000,000,000 in 4 per cent bonds to refinance farm mortgages at interest rates not higher than 4½ per cent. The Frazier-Lemke Farm Bankruptcy Act (1934) authorized the courts under certain conditions to grant farmers burdened by mortgages a five-year moratorium. The next year, the law was declared by the Supreme Court to be a violation of the Fifth Amendment, but a new law modifying the terms of the moratorium and limiting it to a three-year period was unanimously approved by the highest tribunal. Under the various agencies of the Farm Credit Administration and the many laws that were adopted to carry out the new policy, farmers were able to get short time loans to finance current operations and long-term mortgage loans on their farms at relatively low rates of interest. Farm bankruptcies decreased and many farmers were able to get back and refinance property that had been foreclosed. During the first four years of the New Deal a total of more than $3,500,000,000 had been loaned to farmers.

To carry out plans to adjust farm prices to market demands, the Agricultural Adjustment Act was passed. While it provided for credit extension, and mortgage relief, it was designed chiefly to "re-establish prices to farmers at a level that will give agricultural commodities a purchasing power with respect to articles that farmers buy equivalent to the purchasing power of agricultural commodities in the base period." That period was from 1909 to 1914 for wheat, cotton, corn, hogs, rice, and dairy products and from 1919 to 1929 for tobacco. The

Secretary of Agriculture was given extensive authority to reduce productive acreage and to foster marketing quotas.

Voluntary agreements were made between the government and growers of enumerated cash crops including cotton, wheat, corn, peanuts, potatoes, rice, rye, sugar beets, sugar cane, tobacco, and hogs. The farmers who assented received cash in return for withdrawing acreage temporarily from cultivation. Within a year 3,000,000 contracts were signed providing for crop control, including 90 per cent of the cotton and tobacco growers, 80 per cent of the wheat producers, and about all the corn farmers and hog raisers. The money to pay the farmers was obtained through processing taxes imposed upon the manufacturers who prepared farm products for public consumption, such as millers, meat packers, and cotton processors. At the same time marketing agreements were made with producers, processors, and distributors of agricultural products in order that "competitive wastes may be eliminated, trade practices improved, surpluses moved into markets for consumption, and producers prices raised." State and local committees or associations of producers helped to administer the law, which was an extension of federal aid operating through decentralized agencies.

Aided by the inflationary policies and the agricultural reduction programs of the New Deal together with severe drought and dust storms in parts of the country, the AAA resulted in raising farm prices in 1934[1] and 1935. But agriculture received such relief at the expense of consumers, who were also suffering from the depression and were complaining about rising prices. Another effect was to reduce labor on farms. By 1935, there was a reduction of about 1,000,000 man hours. In the South, especially, suffering increased. Tenant farmers and sharecroppers, put off plantations by crop restrictions, ignored the color line for the first time and formed a Southern Tenant Farmers' Union, although with few actual results.

A severe blow was given the farm program in January, 1936 when the Supreme Court declared several aspects of the AAA unconstitutional (Hoosac Mills case[2]). It held that the processing taxes were invalid, the payment of cash benefits to farmers to get them to cooperate was coercive, and that the regulation of agriculture did not come within the jurisdiction of Congress but belonged to the states. The decision did not affect such provisions of the law as marketing agreements, loans, the eradication of animal diseases and sugar quotas.

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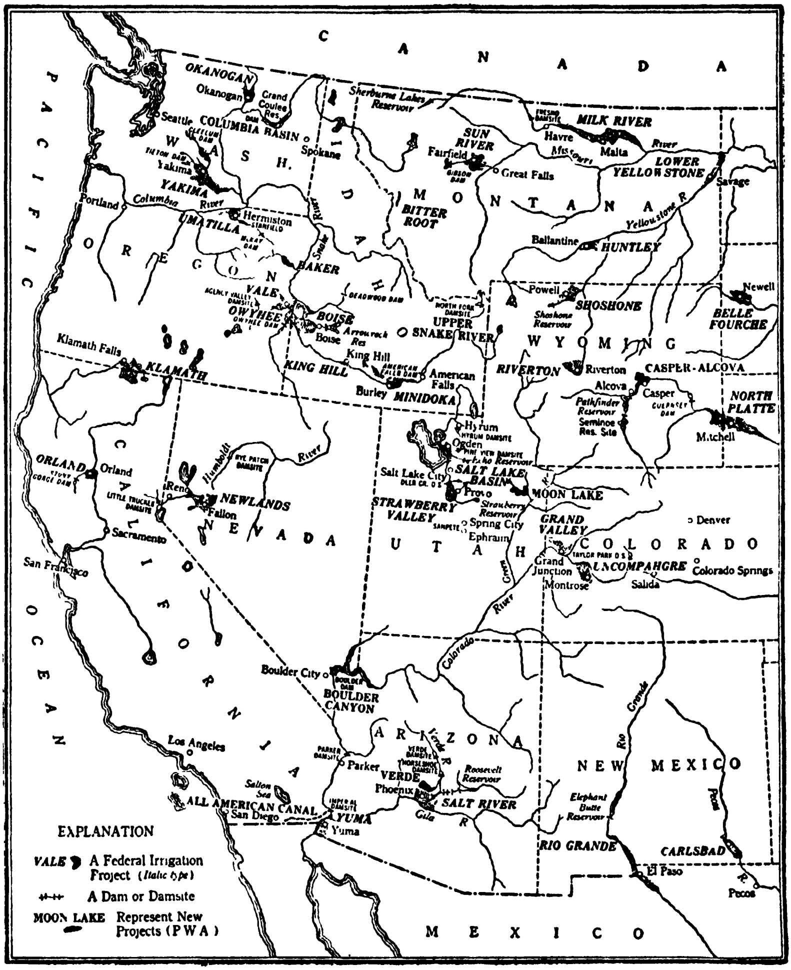
[1] Total farm income in 1934, including government payments, was about $6,100,000,000. about $1,000,000,000 more than in 1933.

[2] United States *vs.* Butler.

In order to accomplish what the invalidated clauses of the Agricultural Adjustment Act of 1933 had sought — control of agricultural production to prevent large unmarketable surpluses — Congress enacted the Soil Conservation and Domestic Allotment Act (1936). An earlier law, the Soil Erosion Act (1935), passed after widespread devastation and distress wrought by flood and dust storms, which sought to prevent erosion, control floods, and relieve unemployment, was the basis for the law. By the Soil Conservation and Domestic Allotment Act, indirect production control replaced the system of direct control under the defunct AAA, by making such control incidental to soil con-



Western Part of the United States Showing Location of Federal Irrigation and Power Projects servation. The law authorized appropriations of not more than $500,000,000 annually for payments to farmers for voluntarily planting a part of their lands in clover, soybeans or other crops to restore its fertility or for directly fertilizing and improving land that otherwise might be put into production; and for purposes of preventing erosion and encouraging flood control. While the law was passed chiefly to aid farmers by attempting to re-establish and maintain farm buying power, the government was at last recognizing the need for protecting the nation's most valuable natural resource — the soil.

The Agricultural Adjustment Act of 1938 — a series of laws — continued the Soil Conservation Act as a permanent farm policy. The new statute was designed to promote this program through fixing national allotments at a point "to give production sufficient for domestic consumption, for exports, and for reserve supplies." Producers of wheat, corn, cotton, tobacco, and rice could obtain storage loans when prices slumped and for holding surpluses until they were needed. Marketing quotas could be employed to buttress the price-supporting influences of the loans. Quotas could be introduced only after producers of a commodity in a special referendum voted in favor of their use by at least a two-thirds majority vote. Each farmer of that commodity was then given a marketing quota and penalties were prescribed for sales in excess of it. If the loans and quotas stabilized prices that were still too low in the light of parity prices and farm income, the Secretary of Agriculture was authorized to make payments, as far as funds were available, to producers of the five basic crops to raise the income from the sale of crops to parity on their normal production. Complementing the provisions of the act of 1938, the Agricultural Marketing Agreements Act of 1937 enabled farmers and distributors to establish rational marketing systems for entire crops. This was done through the orders of the Secretary of Agriculture and not through licenses as attempted earlier.

The Agricultural Adjustment Act of 1938 included provisions designed to broaden the market for farm products in the light of increasing competition with foreign countries and a consequent narrowing of world markets. It was planned to do this through surplus diversion, as for example, distributing commodities to distressed or stricken areas; and by finding new uses for agricultural products. To this end the law authorized the establishment of four research laboratories at Peoria, Illinois, in the New Orleans area, in the Philadelphia area, and in the San Francisco area. The statute also set up the Federal Crop Insurance Corporation, an agency of the Department of Agriculture. With a capital stock of $100,000,000, it was empowered to write insurance against losses from drought, flood, and insects for the wheat farmers of the country.

In order to carry out the broadened farm program, the Department of Agriculture was reorganized in 1938. One of the principal changes was the reorganization of the Bureau of Agricultural Economics as a central agency to keep in touch with local, county, and state committees. It was charged with the duty of familiarizing itself with the problems of all classes and interests in agriculture. It was expanded to include trained personnel representing almost every major aspect of modern agriculture. Among other changes in the Department was the grouping of marketing activities and the appointment of a Director of Marketing to coordinate that field. Another important change came with the setting up of the Agricultural Program Board, composed of the heads of action agencies, planning agencies, and several of the directors, with the Land Use Co-ordinator as chairman. The duty of this Board was to pass finally on all completed programs before they were put into effect. One of the chief problems facing the Department of Agriculture was to coordinate its many and varied programs.

Between 1932 and 1937, cash farm income doubled, reaching approximately $8,600,000,000 in the latter year. But by 1937, good weather had increased production and the business recession had decreased consumption, defeating to a great extent the attempts to develop a regulated program of restriction. Despite reduced acreage of cotton, the crop in 1937 reached the unprecedented figure of 19,000,000 bales and the average price was but eight cents a pound. The government took more than a fourth of it as loan collateral and the 1938 crop was cut one-fifth. Record surpluses of wheat resulted in 1937 and it was becoming more and more evident that uncontrollable world conditions were complicating the American program beyond solution. The world average price of wheat dropped from ninety-six cents a bushel in 1937 to fifty cents a bushel in 1938, compared to a parity price of $1.12. Large surpluses also appeared in dairy products, fruits and potatoes, although the picture was not so dark in connection with corn, livestock, and tobacco. Farm income for 1938 was about 12 per cent less than in 1937, in spite of an increase of federal aid to agriculture. Moreover, world prices generally were at the lowest general level for the entire period of the New Deal.

The coming of the Second World War slowly changed the situation for the farmer. Prices began to rise and increasing demands were made for foodstuffs.

The Attempt to Readjust Industry and Labor

In June, 1933, the National Industrial Recovery Act (NIRA), an emergency measure, went into effect. One purpose of the law was to aid in putting to work the 12,000,000 or more unemployed workers through an extensive program of public works and through the stimulation of private industry. A bond issue of $3,300,000,000 was authorized to finance the construction of federal, state and local projects and new taxes were provided to take care of the huge appropriation (p. 624). Other aspects of the law were designed "to eliminate unfair competitive practices," "to remove obstructions to the free flow of interstate and foreign commerce," and "to improve standards of labor." The President referred to the act as "a great spontaneous cooperation to put millions of men back in their regular jobs this summer. The idea is simply for employers to hire more men to do the existing work by reducing the hours of each man each week and at the same time pay a living wage for the shorter week."

To carry out the provisions of the NIRA, President Roosevelt created the National Recovery Administration (NRA), with Hugh S. Johnson as administrator. A blue-colored representation of the American "thunder bird" with outspread wings was proclaimed the symbol of industrial recovery. All who accepted the President's Reemployment Agreement or a special Code of Fair Competition were permitted to display a Blue Eagle poster. The law provided for the self-regulation of business and industry through the formulation of codes of fair competition. Before the depression, the Department of Commerce had sponsored codes and encouraged cooperation in standardizing products and methods of distributing them. Now the plan was broadened to secure agreement in the different industries in order to eliminate variation in prices of similar commodities and to insure all producers a fair return. Altogether, 578 national codes with 200 supplements, affecting about 22,000,000 workers, were put into effect.

The law required the recognition in the codes of the rights of employees to organize and to bargain collectively through representatives of their own choosing. It was also necessary for employers to "comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment, approved or prescribed by the President." Many industrial executives interpreted the plan as meaning the suspension of the anti-trust laws in return for the concessions of minimum pay, shorter hours, better working conditions and the abolition of child labor. As the codes were enforced, it became evident that the interests of small local firms, labor, and consumers were not regarded in spite of the attempts of a Consumers' Advisory Board to offset monopolistic trends.

In the second year of the experiment, at a time when many codes were being made, it became evident that all was not well with NRA and there was much criticism. Many employers refused to enter into price-fixing agreements with competitors and some who had agreed to the codes refused to give the workers the benefits that they had obtained. The National Labor Board, established in 1933, found it increasingly difficult to protect the rights of workers, especially in regard to collective bargaining. Strikes and labor disputes increased. A part of the public came to believe that the codes were at least partly responsible for the increasing prices of food and other commodities, which, while not high, caused apprehension among those who were suffering from the depression. In the meantime Johnson resigned as administrator and the President reorganized the recovery machinery and at the same time replaced the National Labor Board with the National Labor Relations Board. In the spring of 1935, the Supreme Court in the Schechter case invalidated the code system of NIRA, declaring that it was an unconstitutional delegation of the lawmaking power to the executive and a federal invasion of intrastate commerce. The regulation of business apparently had gone too far. After a drastic reorganization and continuation for a time of the National Recovery Administration, the President officially ended its life (January 1, 1936).

Organized Labor

The National Industrial Recovery Act of 1933 provided a stimulus to labor organization. Campaigns were carried out for organizing non-union industries, but controversy developed over craft and industrial union principles. The two leaders in the contest were President William Green of the American Federation of Labor and President John L. Lewis of the United Mine Workers of America, an industrial union affiliated with the American Federation of Labor. In 1935, supporters of Lewis' program met in Washington, D. C., and formed the Committee for Industrial Organization. The next year, the group was expelled from the Federation but it launched a vigorous campaign to unionize many industries.

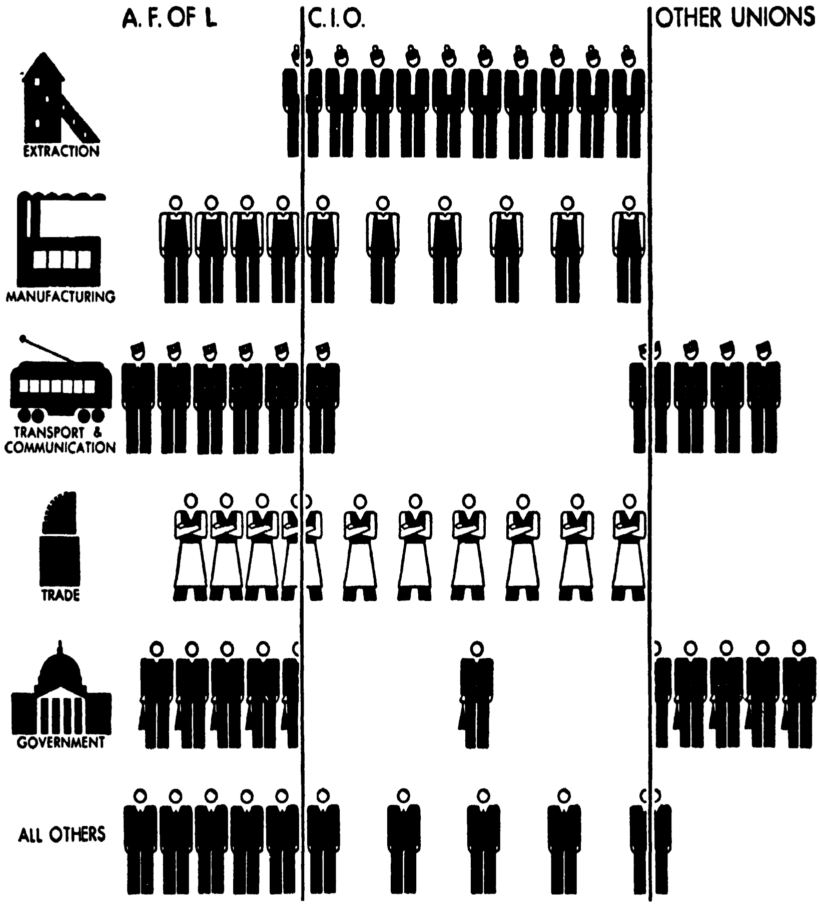
Turmoil increased in the ranks of labor as the breach widened between the two groups. The invalidation of NRA by the Supreme Court in 1935 together with the fear that the Social Security Act and the Wagner National Labor Relations Act might meet the same fate caused labor much concern. But the Court in 1937 approved both.

The Wagner Act of 1935 created a National Labor Relations Board which was destined to become most important in the history of labor relations. The act clearly reasserted the right of collective bargaining. It gave the board power to investigate complaints by labor or employers and to hold hearings in regard to unfair practices affecting interstate commerce. The Board was authorized to issue "cease and desist" orders and in case of disobedience to petition any circuit court of appeal for enforcement of the order. In a five-to-four decision the Supreme Court upheld the law in the case of the National Labor Relations Board *vs.* Jones and Laughlin Steel Corporation (1937). It granted that the labor relations of manufacturers engaged in interstate commerce were subject to federal regulation. The decision robbed big business of the victory it thought it had won in the Schechter case and increased the prestige of the board. Violations of the law continued but court action in each case brought them to a halt.

One of the most important gains for labor was the passage of the Fair Labor Standards Act of 1938, popularly known as the Wages and Hours Act. At the urging of President Roosevelt, the measure was considered by Congress. The proposal resulted in controversy between northern and southern interests, southern employers demanding that southern wages be recognized, while northern employers opposed. The law created a Wage and Hour Division in the Department of Labor and was applied to industries engaged in interstate commerce. It established for the first year after its passage a minimum wage of twenty-five cents an hour, thirty cents for the second year, and forty cents an hour to be sought within the following six years. Geographical differentials were not recognized but local variances were to be permitted. The law also provided that employers should not require more than a forty-four hour week for the first year, a forty-two hour week for the second, and a forty-hour week thereafter. When these limits were exceeded, time and one-half pay was required. The law exempted certain industries and workers. It also forbade child labor under sixteen and excluded anyone under eighteen from working in hazardous occupations. The law was put into effect late in 1938 with no difficulty. In 1942, however, because of the war, opposition developed to the forty-hour week and unsuccessful attempts were made in Congress to modify the law so that overtime payments would not begin until after forty-eight hours of work.

The gains of labor under the New Deal were remarkable. These can be seen in the unprecedented growth of American unionism under the protection of the administration. They were also evident in the series of federal laws that were put into effect with startling rapidity, in-

UNION MEMBERS IN OCCUPATIONAL GROUPS (BY AFFILIATION)



Each symbol represents 10 percent in each occupational group

From Public Affairs Committee's "Labor on New Fronts"

PICTORIAL STATISTICS INC

cluding those on wages and hours, social security, collective bargaining, employment agencies, and other welfare measures. In a series of liberal decisions, especially those connected with the National Labor Relations Board, the Supreme Court changed to some extent the legal background of industrial relations. State legislation and judicial decisions in the East and North also followed the trend that favored labor. Thus, through better wages, shorter hours, safer working conditions, and improved living conditions, large numbers of workers were benefited.

Still another victory for labor came with the passage of the Second Guffey Coal Act. The first one had been declared unconstitutional by the Supreme Court in the case of Carter *vs.* Carter Coal Company (1936). The new law of 1937 established a little NRA in the bituminous coal industry. It imposed a tax of 19½ per cent on the wholesale price of coal, but exempted operators who signed and observed a code under which a commission fixed coal prices.

After launching its aggressive movement for the organization of the automobile, steel, textile, and rubber industry, the Committee for Industrial Organization changed its name to Congress of Industrial Organizations. Strikes, unrest and violence accompanied the demands for unionization. The United States Steel Corporation, General Motors, and the Chrysler Corporation signed agreements. The independent steel companies held out for some time. The Republic Steel Company, Bethlehem Steel Corporation, Jones and Laughlin Steel Corporation and others led by Tom Girdler of Republic and Eugene Grace of Bethlehem held out, but after strikes, violence and hard-fought battles they had to capitulate. The C.I.O. also established unions in other industries including the textile, electrical, radio, rubber, motor truck, shoe industries as well as in a number of sailors and longshoremen's organizations. It attempted to extend its unionism to agriculture through its organization of cannery, packing and agricultural workers.

While the C.I.O. was developing, the expansion of union sentiment among the American working class aided the A. F. of L. Many employers, who had earlier refused to have anything to do with unions, fearing the militant C.I.O., now signed contracts with the A. F. of L. The two organizations fought each other in many parts of the country as they sought to unionize workers. President Roosevelt tried unsuccessfully to bring about a reunion of the two groups. By 1940, each organization claimed a membership of 4,000,000. Regardless of whether these figures were accurate or not, organized labor had made its greatest advances in history under the New Deal.

During this period, strikes increased in number and intensity. The greatest strike in maritime history paralyzed all shipping on the Pacific coast. The sit-down strike, first used on a wide scale in Italy following the First World War, made its appearance in 1936 in France and in the United States. Here it was introduced by the United Automobile Workers and other industrial unions affiliated with the C.I.O. By the new technique strikers took possession of a plant, claiming that the sit-down strike was legal because it was "the most effective and least costly way" for workers to protect their rights. National attention was focussed on this type of strike when it was used in January, 1937, to force a complete suspension of work at the General Motors plant at Flint, Michigan. As sit-down strikes spread, law suits were instituted. In 1939, in the case of the National Labor Relations Board *vs.* Fansteel Metallurgical Corporation, the Supreme Court held that while workers had a right to strike, they had "no license to commit acts of violence or to seize their employer's plant" and that the sit-down strike was "illegal in its inception and prosecution." Following the decision this form of strike practically ceased in the United States, although "slow downs" took its place in many areas. After the outbreak of the European war and as America began to develop her defense machinery once again, strikes increased rapidly. In the first five months of 1941 strikes were five times greater than for the corresponding period of 1940. Many menaced the defense program and as a result, the government took over temporarily three plants — those of the North American Aviation Company at Inglewood, California; the Federal Drydock and Shipbuilding Company at Kearny, New Jersey, and the Air Association Inc. at Bendix, New Jersey. A serious dispute occurred late in 1941 when John L. Lewis ordered a strike of 53,000 miners in the "captive" bituminous coal mines — those owned by and producing only for seven of the largest steel companies, which threatened to tie up the production of needed steel. The issue was finally settled by the acceptance of the "closed shop" by the companies involved. At the same time a nation-wide strike was threatened by the railroad brotherhoods. It was averted by a government fact-finding agency, which granted a part of the demand for higher wages.

Social Security

Although social security programs had long been in effect in leading European countries, little progress was made prior to 1935 in promoting such a plan in the United States. In 1934, President Roosevelt appointed a committee and an able group of technical advisers to prepare a program for the consideration of Congress. Following the report of this Committee on Economic Security, Congress drew up a measure embodying its recommendations. After much debate the Social Security

Act was passed in August, 1935. It included provisions for a federal subsidization of state programs for old age amounting to one-half the total paid each eligible person up to $40 a month. By 1942, about 2,000,000 needy persons were receiving old-age assistance. Another form of aid for the aged administered entirely by the federal government was the old age annuity system for retired workers sixty-five and over, financed by a pay-roll tax on employers and employees. The plan excluded agricultural laborers, domestic servants, casual employees, public servants, or employees of charitable, scientific, literary, educational and religious institutions. The amount paid retired workers depended on the wages earned during employment. By 1942, more than 46,000,000 persons had been given social security account numbers. The constitutionality of the plan, which was put into operation in January, 1937, was upheld by the Supreme Court in that year.

Unemployment insurance was also provided through a payroll tax on wages paid by employers of eight or more persons. The states decided what workers were eligible for unemployment insurance and also the amount of the benefit. Certain classes were excluded as in the old-age annuity system. By 1940, about 28,000,000 workers had unemployment insurance. The constitutionality of the state and federal unemployment insurance plans was upheld by the Supreme Court in 1937.

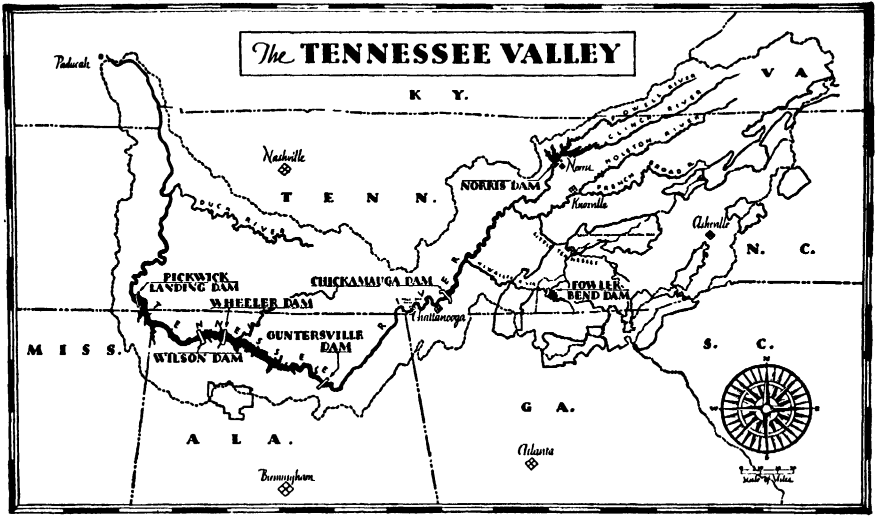
Among other provisions of the law, federal funds were made available to aid the states in caring for dependent children, in granting aid to the blind, in promoting the health of mothers and infants, in aiding crippled children, in establishing and maintaining adequate public health services and in promoting vocational rehabilitation. General supervision of the law was given to a National Social Security Board of three members. In addition, the Secretaries of the Treasury and Labor, the Surgeon General of Public Health, the Bureau of Internal Revenue, and other officials and bureaus were given administrative duties in connection with the law.

Complementing the social security program, a Railroad Employees Retirement Act was passed in 1934. The Supreme Court declared the law unconstitutional (Railroad Retirement Board *vs.* Alton Railroad Company). New legislation was adopted in 1937 and 1938. It provided annuities to railroad employees who retired at sixty-five or after thirty years service.

Conservation

The policies of conservation originating early in the twentieth century had been carefully carried out as a whole, but under the New

Deal the program was rapidly extended and expanded and many daring innovations were introduced. The continuance of earlier policies can be seen in the expansion of national control over coal, petroleum, natural gas, and helium deposits and the addition of several millions of acres to the national forests through a greatly expanded program for purchasing poorly administered forest lands. In addition, many projects were undertaken for the conservation of soil, water, forests, fish, game and other resources carried on by such agencies as the CCC, PWA, and WPA, and the expansion of the work of the Bureau of Biological Survey, as well as in the soil conservation programs provided for the farmers of the country. More spectacular were the projects developed in the Tennessee Valley and similar ones of lesser degree in other parts of the country.



Plan of Tennessee Valley Project Showing Seven Great Dams

Norris Dam, 265 feet high, 1,872 feet long; Guntersville Dam, 80 feet high, 3,980 feet long; Wheeler Dam, 72 feet high, 6,335 feet long; Wilson Dam, 137 feet high, 4,860 feet long; Pickwick Landing Dam, 107 feet high, 7,715 feet long; Chickamauga Dam, 104 feet high, 5,685 feet long; Fowler Bend Dam, 300 feet high, 1,265 feet long

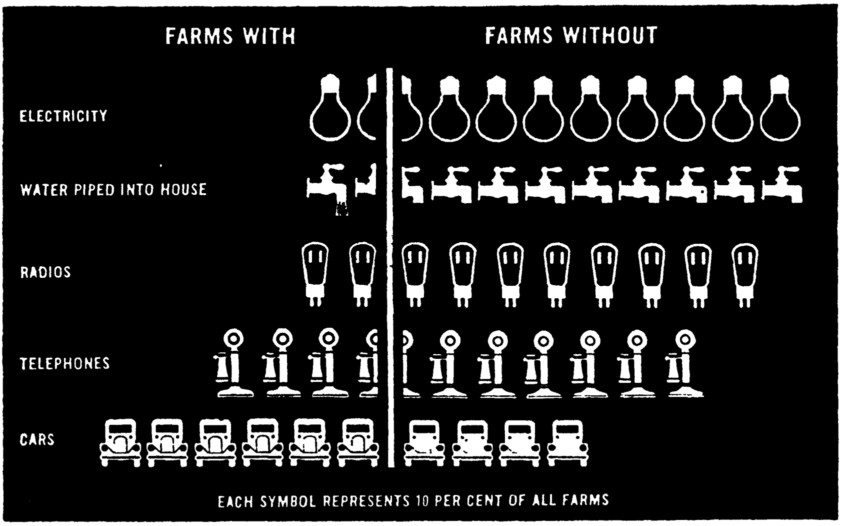
The most elaborate attempt of conservation was carried on in the valley of the Tennessee River involving portions of seven states. During the First World War, the Wilson Dam was built by the federal government at Muscle Shoals in northern Alabama to provide power for the production of nitrates, important in the manufacture of explosives. After the war the project was abandoned and for many years the issue involved a nation-wide controversy over the question of public or private ownership and operation of power facilities. During these years nothing was done by the government in this region because of the inability of Congress and the several Presidents to agree to an appropriate plan, although the government embarked in the public power business in 1928 when Congress authorized the Hoover (later Boulder) Dam. As late as 1931 President Hoover vetoed a bill to authorize the government to produce electric power in the Tennessee Valley and to sell it to the public, on the ground that it would mean competition with private utility companies. By the time that President Franklin D. Roosevelt took office, general feeling had increased among a large part of the public that rates for electric current were too high. It was believed that most companies were operated solely for profit and not in the interests of the consumers. Many electric companies were controlled by huge holding companies and these especially came under attack.

The Tennessee Valley Authority (TVA) was created by Congress in 1933 to provide for the development of the entire Tennessee watershed of approximately 40,000 square miles. The purpose was to develop the resources of the entire river, in every way possible, for the benefit of all who lived in the region. The experiment went far beyond any previously attempted in the field of conservation. Huge dams were constructed on the Tennessee River and its tributaries. The Norris Dam on the Clinch River, the Wheeler Dam, above the Wilson Dam at Muscle Shoals, and others were completed. The total cost of all the projects when finished has been estimated at about $500,000,000.

Among the several objectives of the project, flood control became one of the most impressive. Through the agency of the Gilbertsville Reservoir it was expected that floods on the lower Ohio and Mississippi Rivers would be reduced by two or three feet. Another purpose of the system was to aid navigation when navigable depths are reached in continuous stretches. Still another aim was the creation of water power for producing electricity to be sold at low rates to municipalities, cooperatives, and industries. In spite of many law suits brought by private power utilities, court decisions favored the Authority. In addition to extending the use of power by its program of rural electrification, the Authority provided a "yardstick" for rates by private companies. Still another activity was the development of low-priced fertilizers. Much progress was made and a high grade fertilizer of phosphate concentration has been produced in the plant at Muscle Shoals. In addition, other programs for soil conservation, diversification of agriculture, terracing of hillsides, and reforestation of denuded areas have been carried out in the area.

Among other similar projects should be noted Boulder Dam on the

Colorado River, authorized before the New Deal, in 1928, for flood control, navigation improvement, irrigation, storage and power. It was completed in 1936. The huge Grand Coulee Dam on the Columbia River makes possible a portion of the flow of that river into the fifty-mile long Grand Coulee and provides water for a large area of land capable of high productivity when irrigated. The Federal Bureau of Reclamation became interested in the irrigation of this region in 1903, but a dam was not proposed until 1918. In 1933, President Roosevelt authorized the use of PWA funds for its construction as a major part of a plan for the development of the Columbia Valley.



Copyright U. S. Rural Electrification Administration

THE PROPORTION OF FARMS EQUIPPED WITH AUTOMOBILES AND TELEPHONES AS COMPARED TO THE PROPORTION EQUIPPED WITH ELECTRIC LIGHTS, PIPED WATER, AND RADIOS

Another broad purpose of the New Deal conservation policies has been to provide electric power for farms all over the country. Beginning in 1933 an Electric Farm and Home Authority began work to aid farmers in the extension of power to kitchens, barns, and workshops and to facilitate the purchase of apparatus and appliances. Much was accomplished in this respect. In 1942, President Roosevelt ordered the liquidation of this Authority because of the curtailment of the manufacture of electrical appliances, the purchase of which it financed. In addition to returning to the government its original capital, it also showed a surplus of $650,000.

Closely related to the plans to provide the country with cheap electric power was the increased regulation of public utilities. Under the Public Utility Act (Wheeler-Rayburn Act) of 1935 and the Robinson-Patman Act of 1936, the powers of the FTC, FPC, and SEC were broadened to regulate interstate electric and gas rates and to end the pyramided, holding-company system and its evils. The ICC, FCC, NLRB, and the Maritime Commission also had certain powers of regulation over utilities. Such action together with congressional investigations and newspaper publicity regarding the unsavory activities of many companies put the utilities on the defensive.

The Public Utility Act of 1935 required that all utility holding companies register with the Securities and Exchange and furnish the agency with essential information. Unregistered holding companies were forbidden to engage in interstate commerce; registered companies were subject to rigid control by the commission in regard to issues of securities and the acquisition of subsidiaries. The law also provided for the simplification and reorganization of the holding company systems, for the supervision of accounts, and for the submission of reports by holding companies. The so-called "death sentence" clause limited the operations of each holding company to a single integrated public utility system unless the Commission found it more economical for a company to manage and hold more than one system. As the law went into effect, there was much opposition by the companies to registration. Protests were without avail, for in the case of the Electric Bond and Share Company et al. *vs.* the Securities and Exchange Commission in 1939, the Supreme Court upheld the validity of the provision. Following this decision, a number of utility companies was dissolved to escape the requirement, but of course, the dissolved companies were subject to drastic regulation. Obfuscation, speculation and unhealthy concentration of control were largely ended. The law thus provided for regulation in the interests of the investors, consumers, and the public, and made impossible such pyramiding as that in the gigantic structure known as Insull Utility Investments, Inc.

The Recession of 1937–1938

By 1937, it was evident that progress had been made in the direction of economic recovery. Between 1933 and 1937 industrial production, factory employment, and payrolls about doubled. In spite of this, millions were still unemployed. This led many to believe that the situation was chronic and that unemployment was an inevitable by-product of the machine age. Others, however, enthused by the rapid stride of recovery, felt that the problem would be largely, if not entirely, solved in time. But in August, 1937, a business decline set in, which was as rapid as recovery had been. This continued through the first six months of 1938. Although the recession was severe, no serious panic ensued on the stock market or in business or finance.

As early as the spring of 1937, prices of industrial stock dropped sharply on the New York Stock Exchange, but the business index did not show a drastic decline until August. By the end of the year steel plants were operating only 25 per cent of their capacity. Capital goods industries as well as consumer-goods industries were affected. The automobile, textile and building trades, especially, were hard hit. Prices dropped, including agricultural prices. The stock market followed a general downward course. Railroads were seriously affected and the number of railroad employees was reduced to a forty-year low — 913,000.

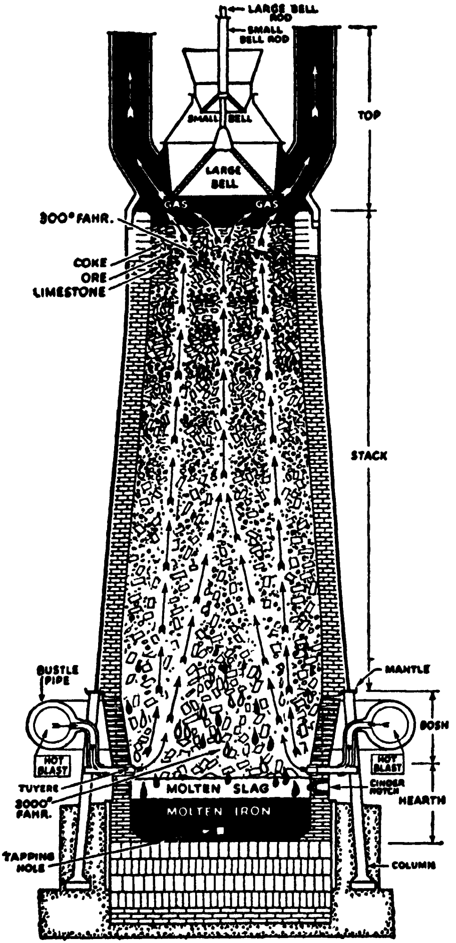
Various reasons were given for the recession. Some people asserted that it was largely due to the curtailment of the pump-priming activities of the government; some, that it was the result of the failure of the government to balance the budget or to reduce the debt; some, that drastic taxation policies had been responsible; others blamed the excessive demands of labor which had been encouraged by the government. Government leaders put the blame on monopolistic practices of certain industrial and business enterprises. Undoubtedly the reduction of government funds in pump-priming contributed greatly to the depression as they were cut from more than $3,000,000,000 annually in 1933–1936 to about $1,000,000,000 in 1937.

As a result of the recession, government spending and lending was renewed. The important New Deal agencies were again voted tremendous sums. The WPA rolls were expanded; new plans of federal and local public works were financed; and farmers received increased payments. The RFC advanced more loans to industrialists and businessmen. The Interstate Commerce Commission in March, 1938, permitted the railroads a 5 per cent increase in rates on farm and forest products and 10 per cent on most other commodities. Everything possible was done to combat the evils of the depression. In the summer of 1938 prices began to improve and within a year the trend toward business activity and employment was definitely upward.

Recovery and Prosperity

As business conditions began to improve, recovery was greatly aided by the outbreak of the Second World War, which began in the fall of 1939. The war brought tremendous demands for war materials and for supplies of all sorts. By 1940, industrial production in the United States was at its all-time record. The defense program also stimulated war industries and as the United States entered another war, the industrial machine, although gigantic, was subjected to demands as never before.

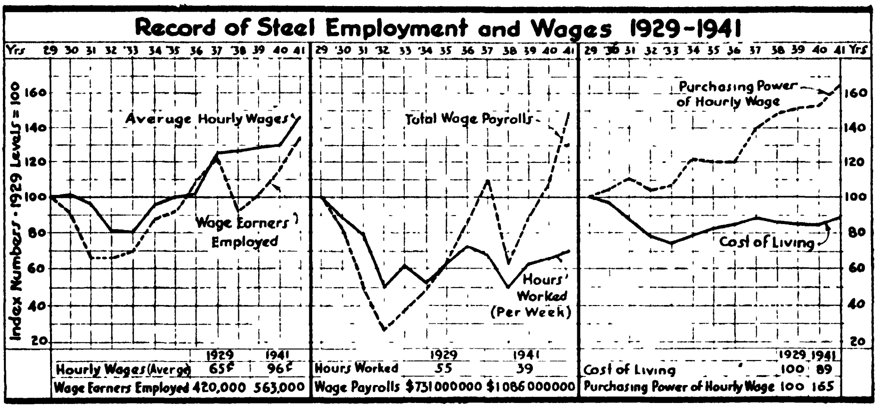
In response to mobilization for defense, the steel industry had a record output of 67,000,000 tons in 1940, which was exceeded in the years that followed. Technological progress had brought the industry to a high stage. During the long depression new steel-making facilities were added and technological changes were often made to reduce the cost of operation and also to improve the quality of the product. An example of the changes can be seen in the introduction of the continuous hot-strip and cold-strip mills for rolling steel sheets and tin



Courtesy of "U. S. Steel News"

A MODERN BLAST FURNACE

plate, which, although seriously dislocating a large number of skilled and semi-skilled workers, provided for increased production, lower costs and better products. Of importance, too, was the rapid multiplication of electric furnaces producing particularly high-speed tool steel and the stainless steels needed for aircraft. Electric furnace capacity was increased from 1,900,000 tons annually at the end of 1939 to 2,586,320 tons at the close of 1940. By 1942 the total annual output of the industry's electric furnaces was about 3,500,000 tons. Improvements were also made in the production of ordinary as well as special types of iron and steel.



Courtesy of the American Iron & Steel Institute

The size of the Americas' steel industry became impressive. In 1940, world steel production was established at a new peak of 159,550,000 tons. The United States accounted for 42 per cent of this total, although it was operating at only 82 per cent of capacity. Germany, together with Austria, the Saar Region, Czechoslovakia, and Poland produced about 18 per cent, and if the production of Belgium, Luxemberg, and France were added, the total would reach 24 per cent. The Soviet Union produced about 14 per cent. Great Britain maintained its production in spite of destructive air raids and made 15,000,000 tons of steel or a little less than 10 per cent of the world's total output for that year.

The automobile industry was another example of large-scale production in the United States. In 1904, automobile manufacturers sold 22,830 new passenger cars and trucks. In 1940, their total sales reached 4,239,931 and at the close of that year, there were 32,025,365 registered motor vehicles in the country. In spite of the depression years of the thirties, Americans were buying cars, although many were sold on the credit plan. But within two years the war was to halt the manufacture of automobiles except for purposes that contributed to the war effort.

Remarkable progress had been made in the field of aeronautics. Although for centuries a few men had experience in flying, the work of the Wright brothers early in the twentieth century marked the beginning of aviation. But until the First World War, flying was largely experimental. That war gave it an impetus. Commercial flying in the United States began in May, 1918, when the government established its first experimental route between Washington and New York. Slowly, other routes were projected. Private companies began passenger service. The Kelly Mail Act of 1925 provided that private companies could carry airmail; contracts were awarded to the highest bidders. The Boeing Air Transport and other companies were organized to carry passengers on regular time schedules, flying by night as well as by day, thus inaugurating air transport service. The series of sensational flights by Americans such as Richard E. Byrd, Charles A. Lindbergh, Clarence Chamberlain, and others created interest and enthusiasm in aviation. Aircraft production in the United States increased in a remarkable manner. The total value of planes and parts produced in 1936 amounted to $77,000,000; in 1940, it reached $544,000,000.

Increasing prosperity in 1940 revealed that the American standard of living was high. A study of economic standards throughout the world published in that year revealed that one-tenth of the people of the world lived in countries of relative abundance, six-tenths lived in countries of extreme poverty, and three-tenths in countries between these two extremes.[3] The United States led the list of the countries of abundance, which also included Canada, New Zealand, Australia, Great Britain, and a few others, but none of the dictator countries. Figures of the sale of automobiles showed the prosperity of the United States. The progress made by the radio industry also revealed the relative wealth of the country as a whole. From 1920, the year that the first pre-announced broadcast was made by station KDKA, the number of broadcasting stations and receiving sets increased in a most remarkable way. In 1922, there were less than 100,000 receiving sets in use in the United States; in 1940 the number was 11,531,000. The large sales of ladies' silk stockings, cigars, cigarettes, and soft drinks also were an index of America's standard of living. Between 1790 and 1940, real wages quadrupled, although the improvement was not uniform or continuous, for depressions and recoveries affected wages and prices.

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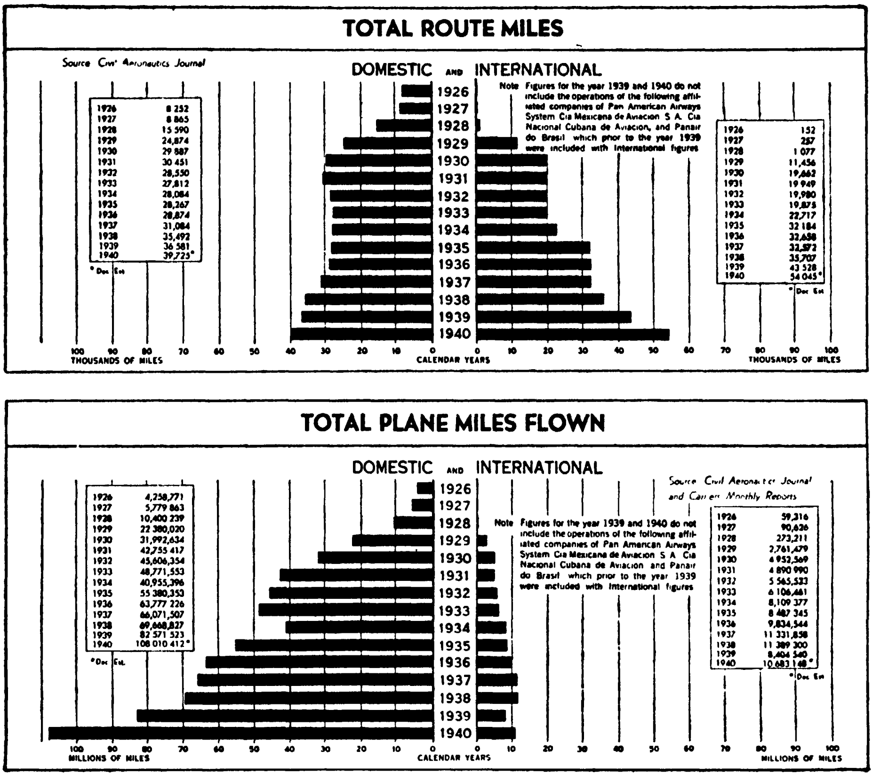
[3] Colin Clark, *The Conditions of Economic Progress* (London, 1940).

In spite of the high standard of living in the United States great variations in modes of living existed among various classes. Several government and private agencies pointed out that, although an annual income of $2,000 was necessary for an urban small family to maintain health and decency, about 85 per cent of the population had incomes of less than $2,000.



TOTAL ROUTE MILES

Source Civil Aeronautics Journal

1926	8 252
1927	8 865
1928	15 590
1929	24,874
1930	29 887
1931	30 451
1932	28,550
1933	27,812
1934	28,084
1935	28,267
1936	28,874
1937	31,084
1938	35,492
1939	36 581
1940	39,725*

* Dec Est

Note Figures for the year 1939 and 1940 do not include the operations of the following affiliated companies of Pan American Airways System Cia Mexicana de Aviacion S A Cia Nacional Cubana de Aviacion, and Panair do Brasil which prior to the year 1939 were included with International figures

1926	152
1927	257
1928	1 077
1929	11,456
1930	19,662
1931	19 949
1932	19,980
1933	19,875
1934	22,717
1935	32 184
1936	32,658
1937	32,572
1938	35,707
1939	43 528
1940	54 045*

* Dec Est

TOTAL PLANE MILES FLOWN

1926	4,258,771
1927	5,779 863
1928	10,400 239
1929	22 380,020
1930	31,992,634
1931	42,755 417
1932	45,606,354
1933	48,771,553
1934	40,955,396
1935	55 380,353
1936	63,777 226
1937	66,071,507
1938	69,668,827
1939	82 571 523
1940	108 010 412*

* Dec Est.

Note Figures for the year 1939 and 1940 do not include the operations of the following affiliated companies of Pan American Airways System Cia Mexicana de Aviacion S A Cia Nacional Cubana de Aviacion and Panair do Brasil which prior to the year 1939 were included with International figures

Source Civil Aeronautics Journal and Carriers Monthly Reports

1926	59,316
1927	90,626
1928	273,211
1929	2,761,479
1920	4 952,569
1931	4 890 990
1932	5 565,533
1933	6 106,461
1934	8,109 377
1935	8 487 345
1936	9,834,544
1937	11 331,858
1938	11 389 300
1939	8,404 540
1940	10 683 148*

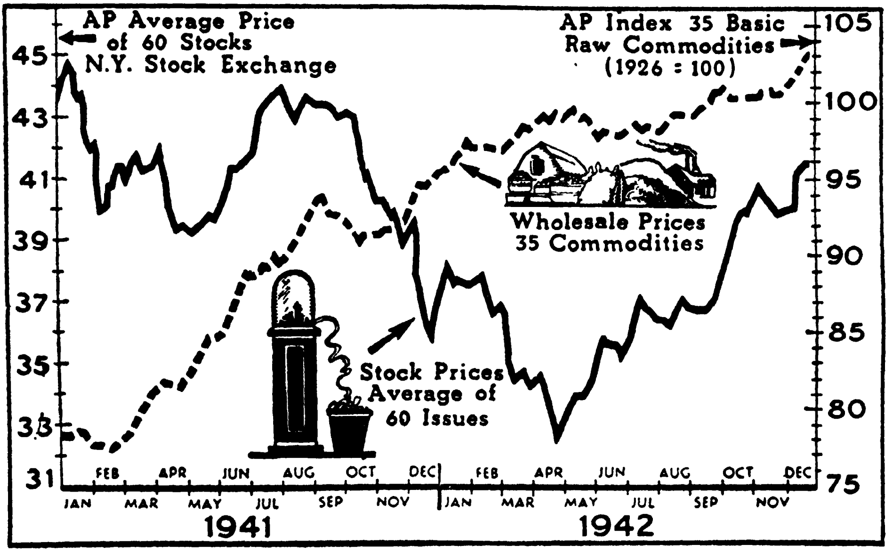
* Dec Est

Courtesy of Air Transport Association of America

(TOP) EXPANSION OF AIR ROUTES (SHOWN IN THOUSANDS OF MILES)
(BOTTOM) TOTAL PLANE MILES FLOWN (SHOWN IN MILLIONS OF MILES)

Among the large groups which suffered most as a result of the recession of 1937–1938, the farmers were the chief. The prices of farm commodities lagged behind the prices of manufactured goods and surpluses continued to haunt the agriculturalists in spite of the attempts by Congress to reduce production. Farm prices had risen from the low of 1932, when they dropped to the index figure of 42 (1924–29 = 100), to 81 in 1936. Then they declined to 62 in 1938, maintaining approximately this level for almost two years. The war then brought increasing prices, especially after the United States became a participant.

The war solved the problem of surpluses for the time being as the Allied Nations drew heavily upon the United States for agricultural commodities of all kinds. But for many years, attempts had been made to use farm products for new purposes. It was discovered that wheat and other grains, as well as potatoes and sugar cane, could be converted into industrial alcohol; corn was used in making glycerines, dry ice, paper, and wall board; flax furnished a straw which was converted into cigarette paper by a process developed almost overnight when the war cut off the supply of linen cloth-paper from France, Belgium, and other European countries; cotton was used in the manufacture of automobile tires, and also in road building; skim milk was converted into casein, a valuable plastic material for coating paper and finishing leather as well as for making glue, buttons, artificial leather and paint; and soybeans, grown in increasing quantities, came to be used not only for feed but for plastics — for automobile steering wheels, table tops, radio cabinets, flooring tiles, buttons and many other things. Thus, through chemistry, new uses were discovered for utilizing constituents of agricultural products such as cellulose, starch, legnin, proteins, and resins. But the field was in its infancy, for synthetic products were made chiefly from non-agricultural raw materials like coal, petroleum, limestone, sulphur, and salt. However, experimentation began to open new vistas for farm products and led the way in bringing together in closer harmony America's two greatest productive forces — the farm and the factory.



Courtesy of "Philadelphia Inquirer"

PRICE LEVELS OF STOCKS AND COMMODITIES, 1941–1942

CHAPTER XXIX

The United States in the Second World War

Background of the War

While the New Deal was wrestling with the problems of the depression, Germany, Italy, and Japan were making preparations for war under the leadership of dictators and of fascist forms of government. The evident failure of the plans for the limitation of armament that had been considered since the First World War, together with the failure of the London Economic Conference in 1933, weakened whatever faith many in the United States had in international collective security as an alternative to the earlier American policy of relative isolation and neutrality. But the events of the decade forced the United States to develop an aggressive and partisan foreign policy and finally to enter the war.

When Mussolini seized Ethiopia in 1935, President Roosevelt asked Congress for a change in the neutrality laws to permit cooperation in League sanctions against Italy. He was refused, although the act of 1935 imposed upon the President the duty of placing embargoes on exports of arms and munitions to belligerent nations. This, of course, operated against Italy. After Japan began a relentless invasion of China in August, 1937, President Roosevelt refused to invoke the neutrality laws, theoretically because no war had been declared, but actually because American sympathy was with China, and the provisions of the laws would have worked to the disadvantage of that country, although trade between the United States and China was small. President Roosevelt's suggestion that aggressor nations should be "quarantined" evoked such attacks from isolationists that he did not return to the subject. Public opinion also forced him to refuse a pledge of cooperation at the Brussels Conference (1937) in support of the Nine Power Pact which Great Britain desired.

A few months after Japan invaded China, the Japanese bombed the United States gunboat, *Panay,* and several Standard Oil Company vessels on the Yangtze River. The public and the government were content to accept formal apologies, indemnities and assurances that it would not happen again. But other incidents occurred which were finally followed by a declaration from Japan that a new order existed in the Far East and that the "open door" was closed. Trade between the United States and Japan fell off somewhat. In 1937, Japan was the third largest buyer of American products and the third largest exporter of goods to the United States. The next year Japanese imports from the United States fell 30.5 per cent and Japanese exports to this country decreased 37 per cent. But Japan, largely in return for gold, continued to secure many supplies, including armaments, steel and scrap metal, which were to be used in a war against the United States.

Meanwhile, in February, 1936, the Neutrality Act was amended in order to prohibit even the granting of loans and credits to nations at war. In July, civil war began in Spain. The government, composed of a Popular Front coalition of liberals, Socialists and Communists, was attacked by conservative groups under the leadership of General Francisco Franco, who planned to set up a dictatorship. He was aided by Italy and Germany. England and France adopted a non-intervention program. Early in 1937, at the request of the President, Congress extended its neutrality legislation to include civil as well as international wars. American liberals and interventionists pointed out that the neutrality laws worked to the advantage of the aggressors — Japan in China and the Insurgents in Spain. In May, 1937, a law was adopted which, although a compromise measure, pleased neither interventionists nor isolationists. It prohibited in time of war the exportation from the United States of arms and munitions to belligerents except to American republics engaged in war with a country outside the western hemisphere. It forbade the sale of securities in the United States by a belligerent and even prohibited travel by Americans on belligerent-owned ships. The President at his discretion could enforce "cash and carry" rules by which nations at war purchasing goods other than munitions would be required to pay cash for them and to transport them in their own ships.

International conditions steadily degenerated. Early in 1938, the President asked Congress for a naval appropriation of $1,000,000,000 in the interests of national defense and later requested the enlargement of the air force to 6,000 planes. The naval program was not approved by Congress for several months. In several speeches, the President stated that the United States must arm against international lawlessness. The reaction to speeches of the President, the Secretary of State, and others who emphasized national defense was quite different from that which greeted similar speeches of Woodrow Wilson in

1916 and 1917. Peace organizations now stressed the futility of war; a movement among college students condemned international conflicts and stressed arbitration; and the Nye Munitions Committee acquainted the public with the enormous war profits made by munition manufacturers from 1914 to 1918. A resolution providing that a declaration of war be submitted to a popular referendum before the nation could go to war was introduced in Congress, although it did not get far. Public opinion in 1938 was generally opposed to another war. But sentiment was soon to change.

The neutrality acts of 1935, 1936, and 1937 had been passed in the belief that the sale of munitions had been at least partly responsible for America's entrance into the First World War. Impending war in Europe in 1938 and 1939 made President Roosevelt apprehensive lest the neutrality laws would prevent Great Britain and France from purchasing war supplies in the United States. Under international law belligerents had a right to purchase contraband in a neutral country and to take it away, but the American laws prevented this. Although the administration and, to some extent, public opinion desired to aid Great Britain, Congress did not make any changes in neutrality legislation until two months after war had begun in Europe. The Neutrality Act of 1939 omitted any embargo on arms, munitions, implements of war, or on any commodity, but it forbade American vessels from carrying any supplies of war; it prohibited ships from traveling to belligerent ports in Europe or North Africa; it prevented the arming of American merchant ships; it required foreign vessels carrying goods to European belligerent ports to have the title to the cargoes transferred from American ownership on a pass-title, cash-carry basis before leaving United States ports; it gave the President discretionary power in preventing American ships from entering "combat zones" that he might proclaim; and it prohibited Americans from traveling on belligerent vessels. In signing the measure in November, 1939, the President stated:

> The revised neutrality law has been signed and has gone into effect today; and I have also, under it, issued a proclamation defining a combat area, described in latitude and longitude.
>
> In plain English, the chief result is this. From now on, no American ships may go to belligerent ports, British, French, and German, in Europe or Africa, as far South as the Canary Islands. This is laid down in the law and there is no discretion in the matter.

The law aided the Allies by removing embargoes, but the purchasers had to take title to goods before their export. The act did nothing to aid the merchant marines and navies of the Allies.

The Beginning of the War in Europe

War broke out in Europe after Germany had violated many provisions of the Treaty of Versailles. In 1933, after the Nazis came into power, Britain and France increased their concessions to Germany, begun earlier with the cutting down of reparations. Germany was permitted to re-arm, re-occupy the Rhineland, and take back the Saar territory. Many in England and France were conciliatory and strongly opposed war in any way. With the coming of Hitler, Germany nationalism again reached its peak and it became clear that Germany desired to incorporate into the Reich the German-speaking peoples of Europe, especially those in Austria, the Sudeten region of Czechoslovakia, Polish Upper Silesia, the Polish Corridor, Danzig and Memel.

The direct line of events that led to the outbreak of the Second World War began in March, 1938 with the German annexation of Austria, another violation of the Treaty of Versailles. Then followed, after a number of excuses, the seizure of the German-populated section of Czechoslovakia, a republic created after the First World War. Prime Minister Neville Chamberlain of England continued the British appeasement policy and at Munich an agreement was signed whereby German troops were to take over Sudetenland piece by piece. Hitler stated that this was the last territorial claim he would make in Europe, while Chamberlain on his return to England declared that he had made a "peace for our time." But Hitler soon broke his promise and took over not only Sudetenland but all Czechoslovakia.

The war really began on September 1, 1939 when Nazi troops marched into Poland without declaring war. Again excuses for the assault were made. The Nazis charged that the Poles had caused disturbances on the frontier, had refused to give up the Corridor which separated Germany from German East Prussia, and had turned down the German demands for the free city of Danzig. The seizure of this city and the march into Poland marked the beginning of a new war that was to threaten the existence of almost every nation in the world. The Germans used a new type of warfare, known as the blitzkrieg—mechanized, lightning warfare. On September 3, 1939, two days after the Nazi forces began invading Poland, Great Britain and France, realizing that the policy of appeasement had failed, declared war on Germany, but before aid could be sent to Poland, that country had fallen. Russia joined Germany and moved into Poland from the East. Once again Poland was partitioned. Russia a little later secured the three Baltic states of Estonia, Latvia, and Lithuania, which before the First World War had belonged to it. Russia then attacked Finland.

Terrific fighting ensued and in March, 1940, a peace was reached. Finland retained its national independence but at the cost of a number of concessions, including much territory. Then followed in quick succession the German occupation of Denmark, Norway, and the Low Countries as the German blitzkrieg struck territory which had been prepared by fifth columnists. The fall of France in the early summer of 1940 was a tragedy for the Allied cause. At this point Italy entered the war. Then followed the Battle of Britain as London and other English cities were bombed from the air. In 1941 Germany startled the world by turning on her ally and attacking Russia.

National Defense

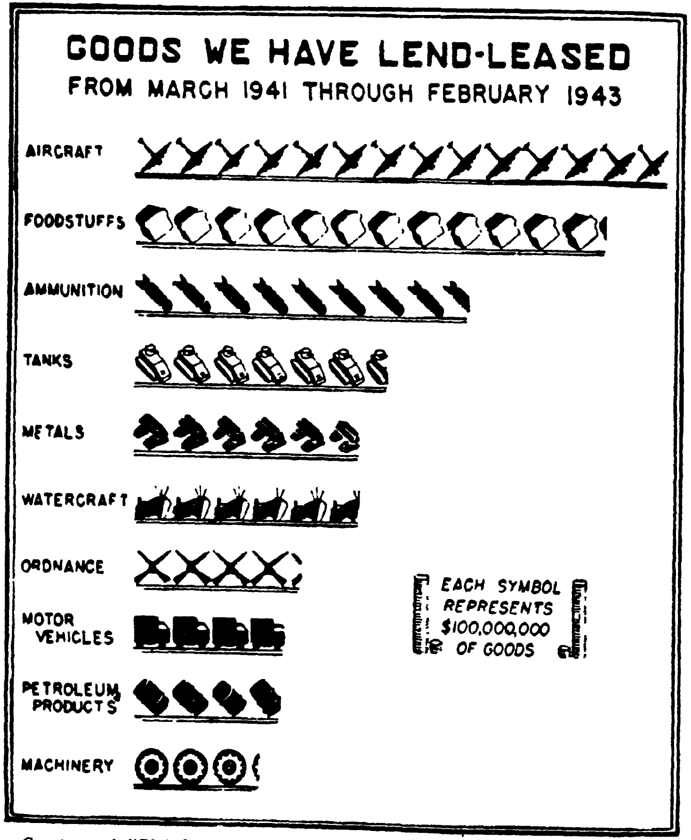
The events in Europe brought much concern to the United States and intensified the controversy between isolationists and interventionists. Early in 1940 President Roosevelt asked Congress for immediate appropriations of $1,182,000,000 for defense. These were not granted until after the fall of France. Then, as taxes were increased, there followed a number of defense measures. A total of $4,000,000,000 was authorized for a two-ocean navy; and an increase of $500,000,000 was made to the Export-Import Bank for the purpose of expanding its lending power, especially to Latin American countries.

President Roosevelt appointed a National Defense Advisory Committee. Edward R. Stettinius of the United States Steel Corporation was given charge of the production of raw materials; William S. Knudsen, president of General Motors Corporation, of manufacturing; Sidney Hillman, vice-president of the C.I.O., of labor and employment; Ralph Budd, chairman of the Chicago, Burlington and Quincy Railroad, of transportation; Chester C. Davis, of the Federal Reserve Board, of agricultural export and production; Leon Henderson, of the Securities and Exchange Commission, of price stabilization; and Harriet Elliot, dean of the Woman's College, University of North Carolina, of consumer interests. Changes were made in the President's cabinet, as Henry L. Stimson and Frank Knox became Secretary of War and Secretary of the Navy respectively. In September, 1940, the President announced that fifty over-age destroyers had been traded to Great Britain in return for the use of naval and air bases in Newfoundland, Bermuda, Jamaica, the Bahamas, St. Lucia, Trinidad, Antigua, and British Guiana. Still another step in the interest of defense was the passage of the Selective Service and Training Act (September, 1940), which was America's first peace-time military draft.

The results of the presidential election of 1940 in which President Roosevelt was elected for a third term, were interpreted as an overwhelming endorsement of his policy to give all possible aid to the Allies. Such a policy was broadened after the election and was carried out largely through various economic methods. The freezing of funds was one. As early as April, 1940, when Germany invaded Denmark and Norway, funds in the United States belonging to nationals from those countries were frozen by executive order to protect them from being seized by the invaders. The same plan was applied to other seized territories. Assets of the invaders, however, were not touched. Thus Germany, Italy and Japan were enabled to finance shipments and propaganda, as well as to move their funds at will. Not until June, 1941, were the assets of all European states frozen and not until Japan entered Indo-China in July, 1941, was the plan applied to that country. The freezing orders imposed heavy penalties for trading with the citizens of such states. As a result, in July, Washington announced a blacklist of 1,800 firms in Latin America doing business with Germany, Italy and Japan. A gray list permitted suspects to engage in transactions under an export license pending investigation. But Japanese firms were not blacklisted until after Pearl Harbor had been struck.

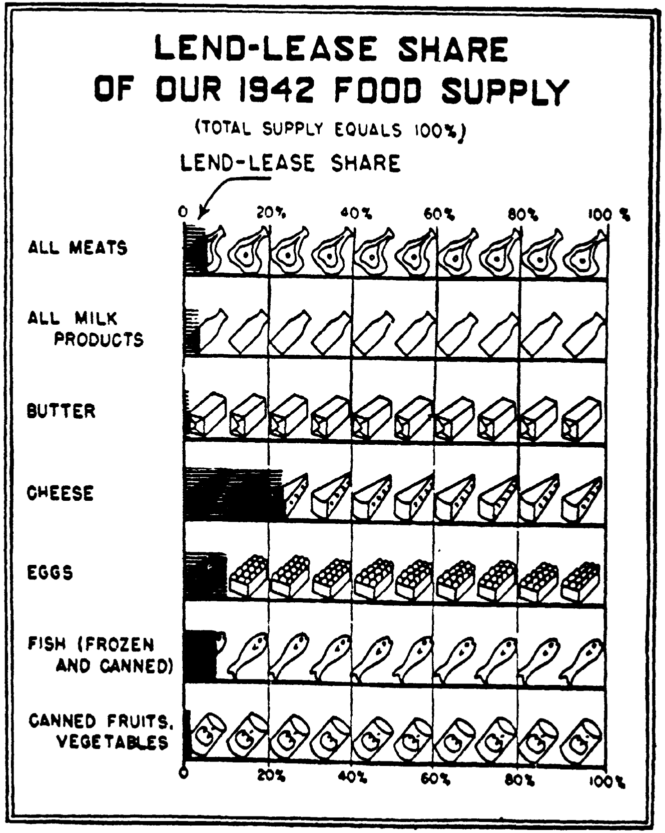
Export licensing became another effective method of defense and of aiding the Allies. The Licensing Act of July, 1940, authorized the President to prohibit or curtail the export of materials used in manufacturing munitions. Within a year, the list included almost all metals, and retail manufactures, machinery, rubber manufactures, chemicals, wood pulp, oils, and fats. The export-licensing system seriously affected economic relations between the United States and Latin American countries. Because of increasing American purchases of copper, wool and other commodities, those countries could buy more from the United States, but the licensing plan interfered. A policy was worked out by the government which granted manufacturers in both hemispheres equal treatment in the distribution of priority materials after the needs of the United States and of other countries under the Lend-Lease Act had been met.

A most decisive step in aiding the Allies was taken when an Act Further to Promote the Defense of the United States, or the Lend-Lease Act was passed in March, 1941 after long and bitter debate. Proponents of the law hailed it as a defense measure which would keep the war away from America and they proclaimed the country to be the arsenal of democracy. The law pledged the United States to lend to the limit of its material resources "defense articles to those governments whose defense the President deems vital to the defense of the United States." A supplementary act was passed providing for an



GOODS WE HAVE LEND-LEASED FROM MARCH 1941 THROUGH FEBRUARY 1943

Courtesy of "Philadelphia Inquirer"



LEND-LEASE SHARE OF OUR 1942 FOOD SUPPLY initial appropriation of $7,000,000,000 to implement the law. By June, 1942, more than $30,000,000,000 had been authorized by Congress. Most of this was appropriated to the British Empire and lesser amounts were sent to Russia, China, Latin American countries, and other powers. By the Lend-Lease Act, the United States underwrote a victory for the democracies at the risk of entering the war herself.

As a part of economic defense, the government attempted to accumulate reserves of strategic supplies. As early as June, 1939, the Strategic Materials Act was passed, which appropriated $100,000,000 for the purchase of important materials over a four-year period. Little was accomplished. In June, 1940, Congress authorized the RFC to organize subsidiary corporations for securing critical materials. The Rubber Reserve Company, the Metals Reserve Company, and the Defense Supplies Corporation were set up. The policy tended to stimulate the importation of raw materials from the countries of Latin America and the Far East, especially the Dutch East Indies. But price ceilings robbed the law of much of its effectiveness. In 1941, the policy was broadened by additional legislation and increased quantities of rubber, tin, tungsten, and platinum were obtained largely in the Far East and copper and other vital commodities chiefly in Latin America. The task was undertaken through the RFC, the State Department, the Office of Production Management (OPM) and the Economic Defense Board (EDB), later the Board of Economic Warfare (BEW). Quarrels between the State Department and the BEW, procrastination and confusion, and a shipping shortage, all contributed to render the program ineffective. At the same time valuable materials necessary for defense purposes were being used to manufacture automobiles and appliances of all sorts. Not until the summer of 1941 did the government take steps to control the production of civilian goods.

Early in 1941 the shortage of shipping became alarming and steps were taken by the government to improve the situation. In April, it was discovered that captains of Italian vessels in United States ports had been given orders to destroy their ships. At the same time Italian and German crews committed acts of sabotage. Under the Espionage Act of 1917, the government took over twenty-eight Italian, thirty-six Danish and two German vessels. In June, Congress empowered the President to place all idle foreign-owned ships in the American merchant marine. The largest, the French liner *Normandie,* was badly damaged by fire in New York harbor as it was being converted to American use. As a further step toward the control of shipping, a Ship Warrants Act of July, 1941 required all vessels in United States ports to secure priority warrants from the Maritime Commission for using port facilities. In addition to these steps, the shipbuilding program was vastly increased. After the United States entered the war in December, 1941, the program proposed a total of 8,000,000 (deadweight) tons of merchant vessels for 1942 and 15,000,000 for 1943.

Throughout 1941, momentous events occurred in rapid succession. Shortly after the Lend-Lease Law was passed, an agreement was made with the minister of Greenland in Washington, permitting the United States to construct naval and air bases in Greenland. Soon afterwards, the American navy began to convoy vessels by the northern route to the British Isles. President Roosevelt also declared that the Red Sea was no longer to be considered a combat zone as specified under the provisions of the Neutrality Act. This made possible a stream of airplanes, tanks and other sorely-needed supplies from the United States to Britain's armies in the Middle East. American aid to the Allies increased the danger to American shipping from German submarines and in June, the *Robin Moor,* an American freighter carrying automobiles and steel rails to Capetown, Africa, was sunk far outside the war zones. As a result, German consulates in the United States were closed and all Germans connected with the German Railway and Tourist agencies, the German Transocean News Service, and the German Library of Information were ordered to leave the country. All Axis assets in the United States were frozen. Relations between the United States and Great Britain grew closer and in August, 1941, President Roosevelt and Prime Minister Winston Churchill met in the Atlantic off the North American coast where they promulgated the Atlantic Charter. Its eight points, reminiscent of Woodrow Wilson's Fourteen Points, set forth the ideals of the democracies as opposed to the totalitarian program. It disavowed aggrandizement of any kind by both nations; it committed both to oppose boundary changes unless desired by the peoples concerned; it endorsed self-government by all countries; it demanded for all nations access to trade and raw materials on equal terms; it pledged to promote the economic collaboration of all nations for improved labor standards and social betterment; it declared for peace to make all nations free from fear and insecurity; it upheld the freedom of the seas; and it demanded the compulsory disarmament of aggressor nations in the interests of international security. At the same time, President Roosevelt and Prime Minister Churchill pledged aid to Russia, which in June had been invaded by its former ally, Germany. They also notified Japan that aggression in the Far East must cease.

A few days after the declaration of the Atlantic Charter, the sinking by submarine on the Atlantic of a series of American vessels began.

President Roosevelt ordered all naval vessels to shoot Axis submarines and surface raiders at sight. In October, the torpedoing of the American destroyer, *Kearny* and the sinking of the Destroyer *Reuben James,* led the United States close to war. Within a short time, Congress changed many provisions of the Neutrality law, permitting the arming of merchant vessels and allowing American ships to enter the ports of belligerent nations.

Defense of the Western Hemisphere

Another aspect of defense centered in hemisphere defense. In its relations with Latin America, the New Deal had developed what it called the "good neighbor" policy. Caribbean imperialism was ended by the withdrawal of marines from Haiti, the abrogation of the Platt amendment regarding Cuba, the relinquishment of the treaty right to intervene in Panama (1936) and the ending of Dominican customs receivership (1941). Every effort was being made to replace suspicion with friendliness.

Much was accomplished at the conferences and meetings of the American republics. Armed neutrality was renounced at the Seventh Pan-American Conference, which met at Montevideo in 1933; treaties of non-aggression which bound the American nations not to go to war over boundaries or to interfere with each other's internal affairs, were signed at the suggestion of President Roosevelt at an Inter-American Peace Conference at Buenos Aires in 1936; and Secretary of State Hull at the Eighth Pan-American Conference at Lima, 1938, reasserted the pledges of non-interference, equality and cooperation, which the United States had given the Latin-American nations in the Conferences of 1933 and 1938.

In the Lima Conference, the delegation from the United States, headed by Secretary of State Hull, sought to align the twenty-one republics of the New World into a solid front against the aggressor nations. At the same time Germany was attempting to tie Latin America into its own economic and political system. Secretary Hull found it impossible to secure as binding an agreement as he desired; but the Declaration of Lima, which included statements regarding solidarity, peace, and a reduction of tariff barriers, was important.

In the period following the Lima Conference, the United States sought to combat Axis propaganda in South America. It gave loans and financial support to Brazil and to other Latin American countries. Reluctant Argentina, incensed at American tariff barriers against its grain and quarantines on its meat, received an advance of $50,000,000 in December, 1940. The next year, the American government announced that it was prepared to lend $70,000,000 a month to Latin American countries. The Division of Cultural Relations of the Department of State engaged in a somewhat belated effort to combat Nazi propaganda, especially in Argentina and Brazil. Goodwill missions of movie stars, professors, and journalists flowed southward and groups of students and others came to the United States largely in the interest of cultural understanding. In 1942, after the United States had entered the war, Nelson A. Rockefeller was appointed Coordinator of Commercial and Cultural Relations with Latin America. As a result of the "good neighbor" policy, the nations to the south recognized their growing community of interest with the United States. This can be seen in the fact that several of them requisitioned Axis shipping soon after similar action by Washington. A number of them formally or informally made available their defense facilities to the United States. In November, 1941, United States troops took over Dutch Guiana in accord with an agreement with the government in exile, and Brazil gave formal consent. In a variety of ways, common understanding was developing among the American republics.

A most serious problem, however, had to be solved with Mexico. In 1938, the Mexican government expropriated all foreign oil holdings, valued at about $400,000,000. The action was legal if proper compensation was made. But American investors protested and the government made vigorous representations. Although few assurances were given by the Mexican government, the United States did not resort to drastic measures. When war broke out in Europe, there was much bitterness in both countries over the question of the oil lands. In May, 1940, Mexico rejected an American proposal to arbitrate the dispute. But the conquests of Germany in Europe resulted in bringing the two countries closer together. Collaboration in defense matters followed and in November, 1941, the two republics announced the signing of a pact. The United States agreed to purchase Mexican silver, help stabilize the peso, lend money for roads, and negotiate a trade agreement. Mexico promised to make substantial payments on general American claims and agreed to settle the oil dispute. In the spring of 1942, settlement of the oil-expropriation problem was made when a lump sum settlement of about $24,000,000 was arranged. Relations between the two countries became more friendly.

From the military point of view, the Havana Convention of 1940 committed the United States to the defense of the Western Hemisphere. All the American republics were represented at the Convention. The Act of Havana provided for the establishment of a "collective trusteeship" in the Americas. Territory of European powers in danger of falling into unfriendly hands might be taken over and administered jointly by the American republics pending final decisions of the areas. The required two-thirds of the twenty-one republics ratified the measure in about a year. The Act marked an important step in hemisphere defense and broadened the Monroe Doctrine by permitting Latin American countries to join in applying that historic policy.

In developing the policy of hemisphere defense, President Roosevelt in 1941 defined American policy to include strategic frontiers beyond the Western Hemisphere. He referred to the Azores and Cape Verde Islands as "island outposts" and emphasized that "control or occupation by Nazi forces of any of the islands of the Atlantic" was a direct military threat to the Americas. After the United States entered the war, the policy of hemisphere defense had to be broadened as the country became one of the leading Allies in another world war.

The treacherous attack of the Japanese at Pearl Harbor brought forth manifestations of hemispheric solidarity from the Latin American countries that were gratifying to the United States. Within two weeks, the six Central American republics and the three island republics of Cuba, Dominican Republic and Haiti had joined the United States in war. Mexico and Colombia broke off diplomatic relations and the others expressed their sympathy for the great republic in the North. In January 1942, the Third Meeting of Foreign Ministers of the American Republics met at Rio de Janeiro. It unanimously adopted a resolution recommending a severance of relations with the Axis and before the Conference adjourned all but Argentina and Chile had broken with the Axis nations.

During the period preceding the war, relations with Canada were friendly. A most important question between the two countries was the deepening of the St. Lawrence-Great Lakes waterway in order to transform lake ports into seaports and also to develop electric power. The St. Lawrence Waterway Treaty, signed in 1932, after great efforts had been made by President Hoover, failed in the Senate in 1934 because several northern states believed that their economic interests would be adversely affected. There was also a belief on the part of some Senators that American railroads would be injured. A few objected to the government engaging in the power business. The matter continued to be a lively issue in the years that followed. But the development of the dictator states in Europe served to draw the United States and Canada into closer unity. In August, 1938, President Roosevelt in a speech made in Kingston, Canada, announced to the people of that country: "I give to you assurance that the people of the United States will not stand idly by if domination of Canadian soil is threatened by any other empire." Exactly two years later President Roosevelt and Prime Minister Mackenzie King, meeting in Ogdensburg, New York, agreed on a plan to establish a Permanent Joint Board of Defense to study problems of defense relating to the two countries. It was an unusual pact for a neutral nation to make with one at war, but it was accepted by the American people as a necessary part of hemisphere defense. As the United States entered the war, much was accomplished in the cooperative war effort of the two countries, especially in breaking down tariff barriers to direct vital supplies to places where they were needed.

The United States in a Global War

As difficulties with Germany increased, American problems with Japan grew more serious. That country had joined the German-Italian military alliance in September, 1940, and then declared the intention of establishing a new order in eastern Asia. By this time, relations between the United States and Japan were strained, especially because of indignities to Americans in China, violations of the open-door policy, and the war in China. In the summer of 1941, when Japan began to widen its conquests and sent troops into French Indo-China, President Roosevelt froze Japanese assets in the United States and also issued an order absorbing the Philippine army into that of the United States. The danger that Japan might push further south in Asia, possibly into Thailand and the Netherlands East Indies became more evident.

Ostensibly for the purpose of trying to solve the difficulties between the two countries, Japan sent a special envoy, Saburo Kurusu, to the United States. In Washington, on November 17, 1941, Kurusu and Ambassador Kichisaburo Nomura began discussions with members of the State Department. On the same day Premier Hidiki Tojo in a belligerent speech to the Japanese Diet stated that there was little use to attempt further reconciliation with the United States and that Japan was ready to drive that country and Great Britain from Asia. The State Department called representatives of Great Britain, China, the Netherlands and Australia into conference and then restated its basic principles for peace in the Far East. They included the abandonment of Japanese aggression, the withdrawal of troops from China and Indo-China, and adherence to a peaceful economic policy. They were dispatched to Tokyo at a time when Japan was increasing its forces in Indo-China and was preparing for an assault on the Burma Road — China's life line of supply from Burma. At the time that negotiations were being carried on at Washington by the Japanese and American representatives, Japan attacked Pearl Harbor from the air early Sunday, December 7, killing more than 3,000 persons, destroying two battleships, three destroyers, many aircraft, and damaging a number of vessels. The next day President Roosevelt delivered a war message to Congress and that body immediately declared war on Japan. Three days later Germany and Italy issued declarations of war on the United States. On the same day Congress accepted the challenge. The United States was at war with the Axis, and a participant in a global war. In a radio address to the American people, President Roosevelt declared: "We are now in this war. We are in it all the way. Every single man, woman, and child is a partner in the most tremendous undertaking of our American history."

Plans to wage a total war were now quickly made. Congress immediately made an army appropriation of $8,000,000,000 and a new Selective Service Act was passed fixing the draft age at twenty to forty-four inclusive and requiring the registration of all men from eighteen to twenty and forty-five to sixty-four for possible civilian work. Before the end of the year the draft age was lowered to eighteen. Men in the fighting forces were given training in warfare similar to that to be encountered on burning deserts, high mountains, and in dense jungles. They were toughened for the gruelling tasks ahead. A Women's Army Auxiliary Corps (WAAC), a Women's Naval Reserve (WAVES), and a Women's Coast Guard Reserve (SPARS), to release men for active combat duty, were authorized and put into service. A Women's Auxiliary Ferrying Squadron, offspring of the Air Transport Command, was established; early in 1943, a Marine Corps Women's Reserve, officially known as Marines, was organized.

In January, 1942, the President asked Congress for an expenditure of $56,000,000,000 for armaments and war supplies in an all out effort to win the war. This and additional appropriations were made. Before the close of the year, the national debt had soared beyond $100,000,000,000. A part of the tremendous expenditures was raised by the sale of war bonds and war saving stamps and a part by taxation. The tax bill, passed by Congress late in 1942, imposed the highest taxes on individuals and corporations in the history of the nation. The reduction of the exemption on income taxes required low income groups to contribute a share in meeting the costs of war. Excise taxes were greatly increased on liquors, tobaccos, and a variety of other commodities. The law also imposed a "victory tax," a 5 per cent levy on gross incomes of $624 or more, to be collected at the source, but provided for a post-war refund of 25 per cent to single persons and 40 per cent to heads of families.

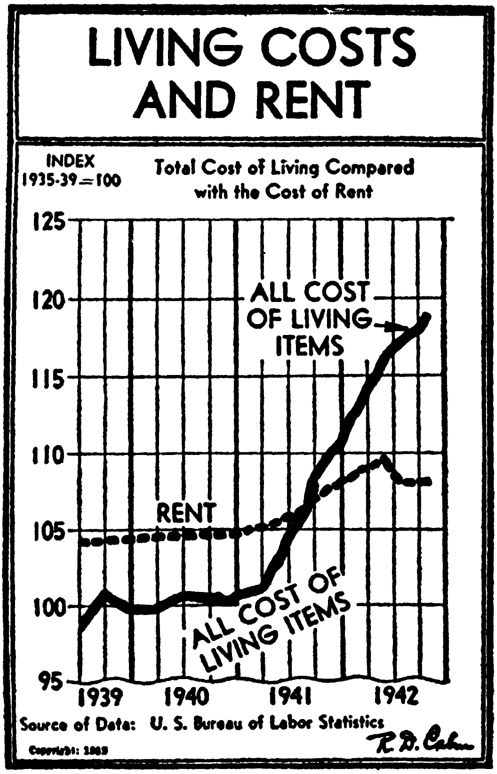
OUR SUPPLY OF VITAL WAR MATERIALS

COMMODITY	USES IN WAR PROGRAM	PRESENT SOURCES	ADEQUATE SUPPLY	FOR ESSENTIAL USE ONLY	? CRITICAL SHORTAGE
ALUMINUM (Bauxite)	Airplanes, Incendiary Bombs, Camp Equipment	British Guiana, Surinam, U S A.			✓
ANTIMONY	Bullets, Shrapnel, Steel Alloys, Shell Primers, Storage Battery Grids, Chemicals, Paints, Enamels & Rubber Manufacture	Mexico, Bolivia, China, U S A.		✓	
ASBESTOS	Brakebands, Clutch Facings, Insulation, Fireproofing, Machine Gunners Gloves	Canada, U. S. A.	✓		
CHROMIUM	Steel Alloyed Armor Plate, Stainless Steel, Chemicals	Rhodesia, New Caledonia, Cuba, U S. A.			✓
COAL	Power, Heat, Coke, Chemicals	U. S. A.	✓		
COPPER	Ammunition, Dynamos, Motors, Power Lines	U S. A., Chile, Peru, Canada, Mexico, Africa			✓
COTTON	Clothing, Tents, Smokeless Powder, Explosives	U. S A.	✓		
FATS	Explosives, Medicines, Plastics, Paper, Printing Inks	U. S. A.		✓	
IRON	Cast Iron and Steel	U S. A.		✓	
LEAD	Bullets, Ethyl Gas, Storage Batteries, Bearing Metals, Paints, Cable Sheathings	U S. A., Mexico, Canada		✓	
MAGNESIUM	Alloys for Aircraft Parts & Engines, Bomb Casings, Incendiaries, Tracer Bullets, Flares and Star Shells	U. S. A.		✓	
MANGANESE	Steel Alloy	Cuba, Brazil, Africa, Soviet Union, U S A.		✓	
MERCURY	Detonators, Paint, Mercury Turbines, Fungicides, Scientific Work, Medicines	Alaska, Mexico		✓	

COMMODITY	USES IN WAR PROGRAM	PRESENT SOURCES	ADEQUATE SUPPLY	FOR ESSENTIAL USE ONLY	? CRITICAL SHORTAGE
MOLYBDENUM	Alloy Steel for Armor Plate, Rifles, Aircraft and Locomotive Parts, Car Wheels, Oil Drills	U S. A.	✓		
NICKEL	Alloy Steel for Armor Plate, Metal Plating	Canada, Cuba, U S. A.			✓
PETROLEUM	Gasoline, Lubricants, Fuel Oil, Diesel Oil, Chemicals	U. S. A., Mexico, Venezuela		✓	
PHOSPHATES	Fertilizers	U. S. A.	✓		
POTASH	Fertilizers	U. S. A.	✓		
RUBBER	Tires, Gas Masks, Gaskets, Hose, Clothing, Hospital Equipment	U S. A., (Stockpile and Synthetic), Mexico, Brazil			✓
SALT	Chemicals, Canning, Preserving, Food Preparation	U. S. A.	✓		
SULPHUR	Chemicals, Explosives, Mustard Gas, Bleaching, Rubber	U. S. A.	✓		
TIN	Tin Cans, Metal Bearings, Bronze, Solder	Bolivia, Belgian Congo, Mexico, French Cameroons			✓
TUNGSTEN	Alloy In High-Speed Cutting Tools, Armor Plate, Gun Breeches, Armor Piercing Bullets	U. S A., Bolivia, Argentina, Peru		✓	
VANADIUM	Alloy for Special Steels for Heavy Guns, Railway, Bus, Truck Operation	U S. A., Peru		✓	
WOOD	Construction, Fuel, Crating, Paper, Plastics, Rayon	U S. A., Canada		✓	
WOOL	Clothing	U S. A , Australia, Argentina, Uruguay Brit So Africa		✓	
ZINC	Cartridges, Die Casting, Galvanized Steel	U. S A , Canada, Mexico		✓	

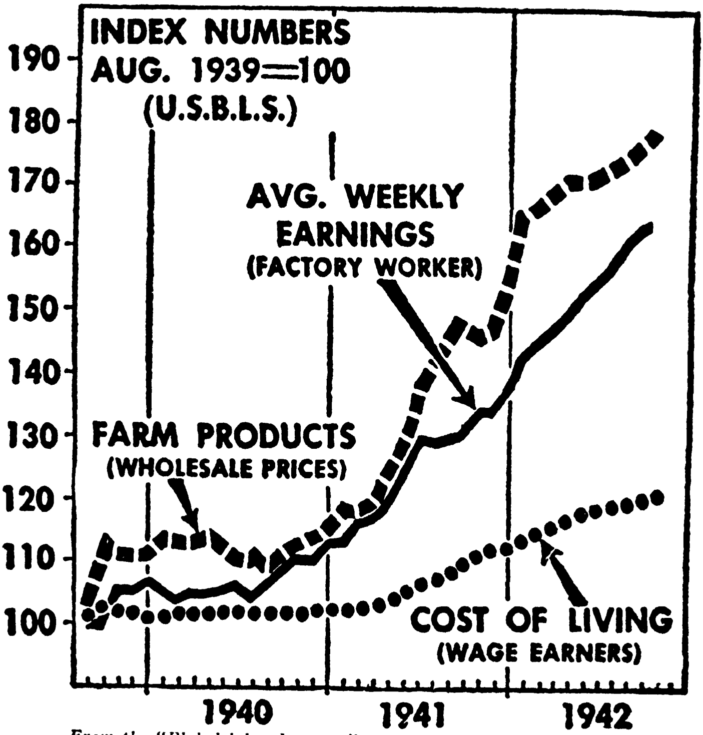
FROM NEW YORK TIMES PREPARED BY PICTOGRAPH CORPORATION

Industrial mobilization made rapid progress. The first agency established to coordinate the defense effort was the National Defense Advisory Committee in 1940 (p. 655), but it was only an advisory body. In January, 1941, the President established the Office of Production Management (OPM) to provide centralized control over production. William S. Knudsen was made director general in charge of production and Sidney Hillman, associate director in charge of labor relations. The OPM was given considerable authority but it relied chiefly on the voluntary cooperation of industry. It decreed priorities on steel, iron, rubber, silk, and automobiles. At the same time, Congress authorized the President to requisition defense materials.



Courtesy of R. D. Cahn

In order to supplement the OPM, the President, in April, 1941, created the Office of Price Administration and Civil Supply (OPA), headed by Leon Henderson, to stabilize prices so as to protect the nation from rising living costs and possible inflation resulting from heavy defense expenditures. Price rises in steel, cotton goods, rubber tires, automobiles, and other goods were controlled, but Congress had to grant special price fixing powers. After the United States entered the war, the dangers from inflation increased as the gap between the supply of commodities and the purchasing powers of the consumers of the country widened. In April, 1942, in order to keep the cost of living from spiraling upward, President Roosevelt suggested to Congress a seven-point anti-inflation program which included heavy taxation, price ceilings, stabilization of wages and salaries, stabilization of prices of agricultural products, the buying of war bonds by earners instead of the purchase of nonessential goods, rationing of all scarce essential articles, and the discouragement of credit and installment buying. Immediately, Price Administrator Henderson issued an order making it illegal for wholesalers and retailers of most commodities to sell their products at a higher price than they charged in March, 1942. Later, rationing was begun in sugar. From time to time other commodities were added to the list and a system of point rationing was finally inaugurated. Late in 1942, Henderson tendered his resignation to the President and was succeeded by Ex-Senator Prentiss M. Brown.



From the "Philadelphia Inquirer"

Congress was slow to enact the necessary legislation asked by the

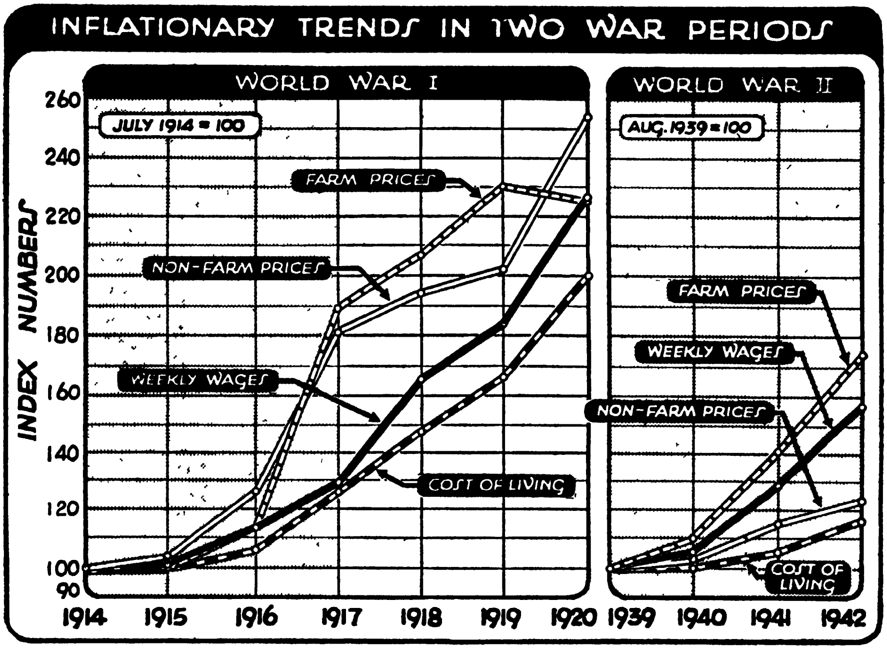
President to prevent inflation. But in October, 1942, this was finally done, when the anti-inflation law was passed. The President was granted broad powers, with some limitations, to hold down wartime living costs. The measure, which had been delayed because of controversy over farm prices, guaranteed the farmer at least 90 per cent of parity prices for his major crops and provided that no ceilings be placed on farm prices at less than parity or below the highest price received for any commodity between January 1, 1942 and September 15, 1942 (adjusted for grade, location, and seasonal differentials).

The President appointed James F. Byrnes, former Senator and ex-Justice of the Supreme Court, as Director of Economic Stabilization. A fourteen-man Stabilization Board was set up, consisting of eight heads of departments and agencies of the governments and two representatives each of labor, management, and farmers. Wide powers were conferred on Director Byrnes by the anti-inflation act and by the President's orders based on it. He was authorized to "formulate and develop a comprehensive national policy relating to the control of civilian purchasing power, prices, rents, wages, salaries, profits, rationing, subsidies, and related matters." He was empowered "to issue directives on policy to the federal departments and agencies concerned."

Prompt action followed the establishment of the Stabilization Board. The Price Administrator, a member of it, clapped price ceilings on exempted food items, except a few of seasonal character. Rent control was extended to the whole country and all rents were frozen at the March 1, 1942 level. Wage rates were fixed at the September 15, 1942 level unless decided otherwise by the War Labor Board, increases were granted in the steel industry and in a few others. Finally salaries were frozen and a limit of $25,000 placed on all salaries after taxes, and "with due allowance for the payment of life insurance premiums, fixed obligations," etc. Early in 1943, Congress overruled the President by permitting salaries to rise to the highest point attained up to September 15, 1942. Under the authority of the anti-inflation law, the country had taken a long step toward full-time war economy.

Before the United States was actually at war, the President set up. in August, 1941, the Supply Priorities and Allocations Board (SPAB) for the purpose of supervising the entire production program. Vice President Henry A. Wallace was made chairman and Donald Nelson, of Sears, Roebuck and Company, was appointed executive director. The Vice President was also head of the Economic Defense Board, which controlled exports; the problem of distribution at the home and abroad now centered in him. Shortages had already appeared in magnesium, nickel, copper, chromium and even in aluminum, although in regard to the latter it was not entirely due to the lack of bauxite, but to the difficulties encountered in reducing it through tremendous electrical power. To aid in securing copper, the tariff was suspended on government purchases from Chile and bonuses or attractive prices were offered for the product in the United States where the cost of production was high.

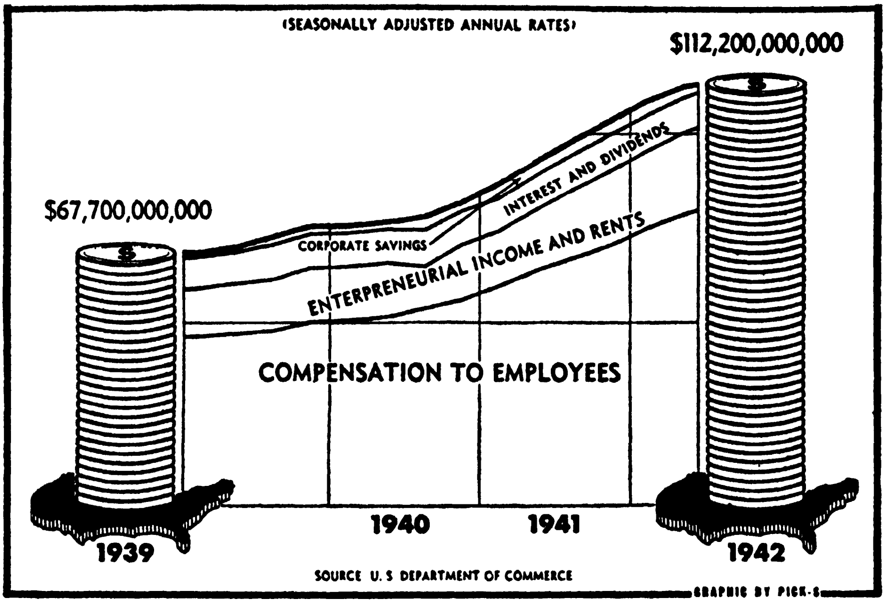
Early in 1942, when war had become a grim reality, a Senate investigating committee reported that war production had been impeded by the bungling of government officials, the greed of employers, and the selfishness of labor. The committee severely criticized several government agencies and suggested a reorganization of the Office of Production Management. President Roosevelt immediately created the War Production Board (WPB) with Donald Nelson, who was moved from the SPAB, as its head. At the same time, the National War Labor Board was established, under the chairmanship of William H. Davis, a New York lawyer.



From the "New York Times"

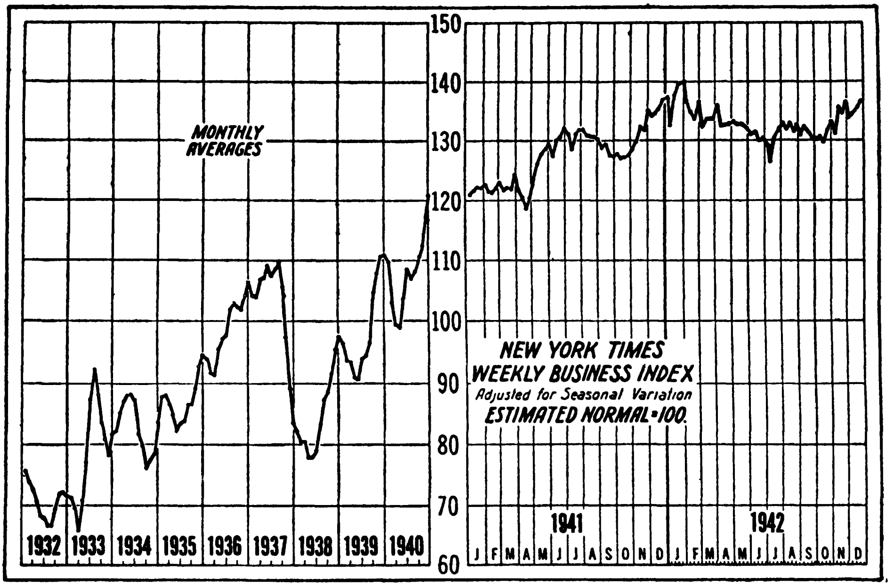
The War Production Board was given full authority to supervise war production and Congress established criminal penalties for violation of the government's priority orders. It substituted for general priorities a classified system of special allocations of all strategic materials. The production of automobiles, radios, and other manufactures for civilian use was stopped and was reduced in other consumer manufactures in order that materials be used for war goods.

The conquests of Japan in the Pacific cut off the supply of crude rubber from British Malaya and the Netherlands Indies. Other sources of supply were sought in South America where only a small fraction of the country's needs could be obtained (chiefly from trees growing wild). Rubber plantations were developed in South America, but since years must elapse from the time trees are planted until they become productive, the shortage in the United States could not be relieved. Among the new plantations was one established by the Ford Motor Company in the Amazon Valley. Guayule, a shrub from which rubber may be obtained after several years' growth, was planted in California and other parts of the United States. For immediate needs, however, the manufacture of increasing quantities of synthetic rubber was projected. Even in 1941, the Standard Oil Company of New Jersey put into operation the first oil refinery equipment built expressly to produce butadiene, a co-product in the manufacture of ethylene and gasoline, and the principal material for the manufacture of buna rubber. In 1942, a controversy was waged in Congress over the question of whether its synthetic rubber program should be carried out by the petroleum interests or the agriculturalists who demanded that alcohol



From the "Philadelphia Inquirer"

NATIONAL INCOME REACHES AN ALL-TIME HIGH IN 1942 made from grain be used. The oil men received financial backing from Congress to carry out the synthetic program, and President Roosevelt appointed William Jeffers, president of the Union Pacific Railroad, as Rubber Controller, with full power in the conservation of the rubber in use and in the manufacture of that to be produced. To replace the tin formerly obtained from the Pacific areas, funds from the United States were given to Bolivia, the chief tin producing country in the Western Hemisphere, for the development of smelters. In the past, most of its tin ore was shipped to Europe to be refined and therefore it lacked smelters. Among other shortages of essential materials, the most serious were silk, manganese, chromium and copper.



From the "New York Times"

BUSINESS INDEX, 1932–1942

During 1942, many other actions had been taken in the direction of war effort. Elmer Davis, who was made Director of the Office of War Information (OWI), discontinued or curtailed more than 500 government publications. Among other war activities were the drive for scrap for the steel industry, the rationing of oil for heating in thirty eastern and north-central states, and the strict rationing of gasoline. In the East where restrictions were first imposed, the chief reason for rationing was the shortage of gasoline because of the difficulty of shipment by sea and the need of the military and naval forces. Nationwide rationing followed, largely to conserve automobile tires because of the shortage of rubber.

A most important step was taken when a War Manpower Commission (WMC) was set up to direct millions of men and women voluntarily into war work in the hope of avoiding compulsory action. The WMC undertook to "freeze" labor in order to put an end to labor pirating by making the United States Employment Service the sole agency for hiring highly-skilled war workers. Late in 1942, Paul V. McNutt, Administrator of the Federal Security Agency, was made chairman of the WMC, with broad powers for controlling manpower for both military and civilian purposes. The United States Employment Service was integrated within the Commission and the Selective Service System was put under its control.

By the close of 1942, the Emergency War Agencies had been organized for total war. These included: the Economic Stabilization Board; the War Production Board; the War Manpower Commission; the Board of War Communications; the National War Labor Board; the Office of Alien Property Custodian; the Office of Civilian Defense; the Office of the Coordinator of Inter-American Affairs; the Office of Defense Health and Welfare Services; the Office of Defense Transportation; the Office of Lease-Lend Administration; the Office of Scientific Research and Development; the Office of War Information; the Food Administrator; the War Relocation Authority; the War Shipping Administration; and the Petroleum Administration for War. A number of joint boards and committees were established including several with Canada and Great Britain for integrating war activities; the joint Defense Commission with Mexico; the Inter-American Defense Board; and the Pacific War Council. The older agencies and Departments of government, of course, were also put on a war footing and became integral parts of the war program.

When the United States entered the war, the military affairs of the United Nations were gloomy. Disaster followed disaster in sickening train. Unprepared for a seven-ocean war, the navy of the United States fought a desperate battle in the American waters of the Atlantic. But supplies by the North Atlantic and other routes were reaching England, Russia and other allies. By the end of 1942, a changed outlook developed. Americans were fighting on many fronts all over the world. Instead of being forced to wage a defensive war, the Allied nations were now beginning to take the offensive on far-flung battle lines. Victories in Russia, North Africa, and the Pacific, early in 1943, marked a change in the complexion of the struggle. Growing economic strength of great proportions was helping to turn the course of the war in favor of the United States and her allies.

CHAPTER XXX

Victory and the Problems of Peace

The End of the War

By the close of 1943 the allied nations were gaining the initiative in the war as victories were won on the outer rim of the conflict areas and the advances of the enemy were stopped. The struggle for North Africa was begun the preceding year with Anglo-American landings in French Morocco and Algeria from an armada of more than 850 warships and transports; it resulted in the conquest of Tunisia and allied control from Gibraltar to Suez. The Middle East, necessary to crush Germany, was held. The mighty Russian counteroffensive had swept from the Volga River to Poland and was pushing toward Germany; the Anglo-American attack on the "soft underbelly of Europe" brought the capture of Sicily, Sardinia, and all of southern Italy, Naples and Foggia, although progress into Italy at first was slow. The American drives in the Pacific areas, marked by sea battles, amphibious landings and jungle fighting, led to the capture of many bases necessary to surround and defeat Japan. The economic might of the United States was turning the tide of the conflict in favor of the Allies as men, airplanes and supplies were poured into the conflict areas.

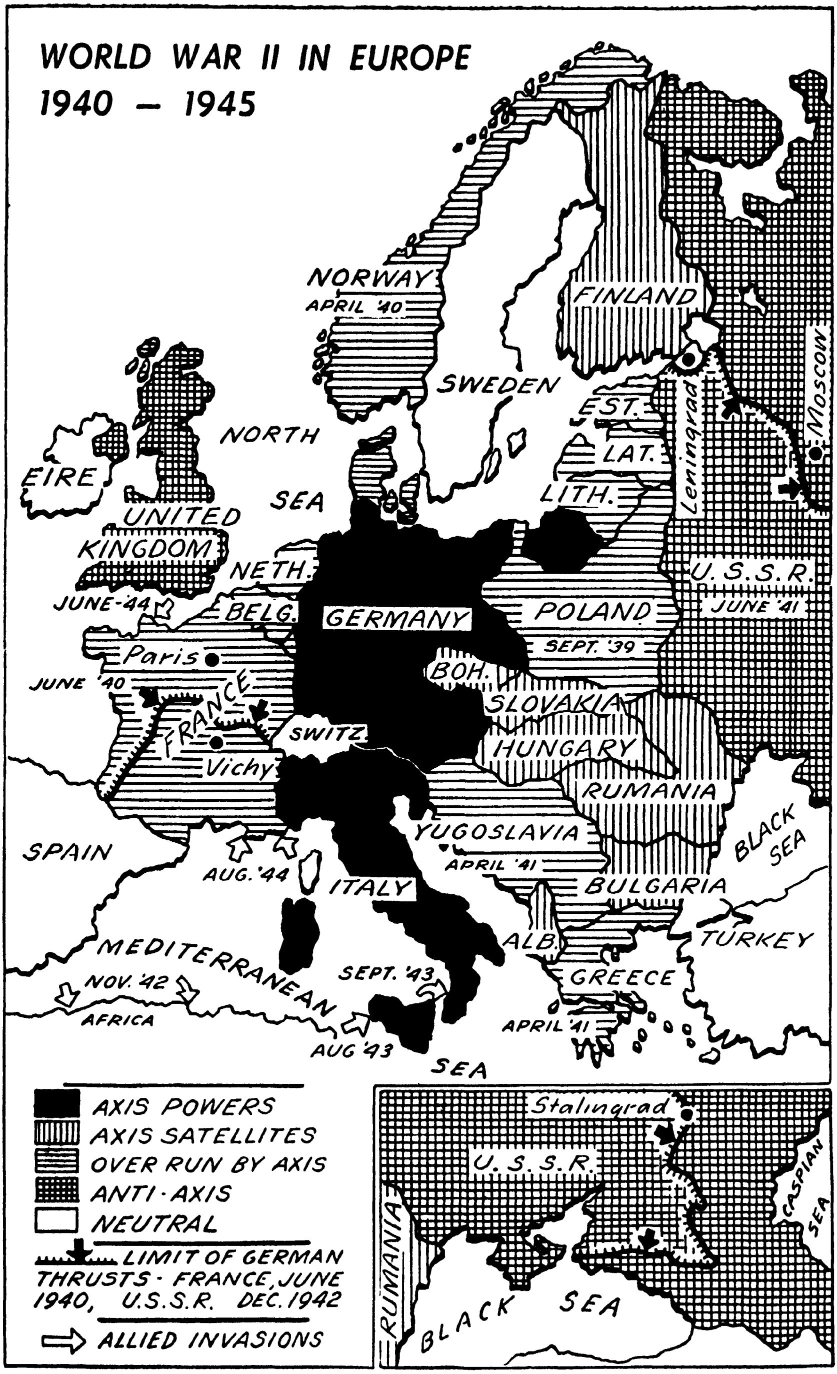
As allied air, ground and sea forces were making gains, plans were devised to land a huge army somewhere on the coast of France in order to open a second European front for the purpose of driving eastward to Germany. Russia was insistent that the Anglo-American drive begin as soon as possible to relieve her battle line in the East. General Dwight D. Eisenhower took charge of the preparations for the invasion of France, and England became the base of operations. Men and supplies were concentrated in Britain, and the United States army there was built up to more than 1,500,000 men. Contingents of British, French and Canadian forces, together with units from other nations, were assembled for the invasion. In the meantime, the growing air fleets of the Allies left England on an around-the-clock schedule, dealing destruction and ruin to Hitler's European fortress, weakening the German air forces, impairing German communications, and reducing German war production. At last, D-Day (June 6, 1944) arrived, and two days after Rome was taken—the first Axis capital to fall—the greatest amphibious force in history landed in Normandy; the drive to Berlin from the West had begun.

The allied strategy of war, a strategy based on the industrial superiority of the United States, was showing results. The decisions to utilize completely the economic power of the United States as the "arsenal of democracy" for all the allied nations and to concentrate first on the defeat of Germany had been fortunate ones. The transoceanic supply lines had been made safe by the defeat of the German submarine campaign, and allied objectives were being achieved. The invasion of France from the west and the south was the logical culmination of all the preceding campaigns.

The invasion of Normandy was followed by continued Russian victories in the East, by the American liberation of the Philippines, and finally by the conquest of Germany, though the eastward advance was held back for several weeks by the bloody Battle of the Bulge. Carrying out plans agreed upon by the Allies, the Russian army reached the Oder River and stood poised for the final assault on Berlin, which was captured after bitter fighting. In their drives westward to Berlin, the Russians were aided by the possession of 400,000 American motor vehicles, 6,000 tanks, 13,000 planes, 300,000 tons of explosives, as well as by allied air operations against Germany. A few days before Berlin fell, Benito Mussolini, the Italian dictator, was captured by Italian partisans and executed. Hitler apparently died amid the flames and ruins of Berlin as the Russians entered the city. On May 7, 1945, the Germans surrendered unconditionally, and the following day was proclaimed Victory-in-Europe Day, or V-E Day.

In the midst of the triumphant advances of the Allies and just as victory in Europe seemed assured, people all over the world were shocked to hear of the sudden death of President Franklin D. Roosevelt (April 12, 1945). The previous February the President had conferred at Yalta in the Crimea with Prime Minister Churchill and Joseph Stalin, one of the several conferences held by the allied leaders, and on March 1, 1945, although broken in health, he had appeared before a joint session of Congress to present a report on the Yalta conference. The death of President Roosevelt brought Vice-President Harry S. Truman to the presidency, and the American people gave him wholehearted support to complete the task of winning the war.

American successes in the Pacific, although accomplished with many casualties, prepared the way for the attack on Japan. Air raids were


WORLD WAR II IN EUROPE
1940 – 1945
NORWAY
APRIL '40
SWEDEN
FINLAND
EST.
LAT.
LITH.
Leningrad
Moscow
EIRE
NORTH
SEA
UNITED
KINGDOM
NETH.
JUNE-44
BELG.
GERMANY
POLAND
SEPT. '39
U.S.S.R.
JUNE '41
Paris
JUNE '40
FRANCE
Vichy
SWITZ.
BOH.
SLOVAKIA
HUNGARY
RUMANIA
BLACK
SEA
YUGOSLAVIA
APRIL '41
SPAIN
AUG. '44
ITALY
BULGARIA
TURKEY
ALB.
GREECE
APRIL '41
MEDITERRANEAN
NOV. '42
AFRICA
SEPT. '43
AUG '43
SEA
AXIS POWERS
AXIS SATELLITES
OVER RUN BY AXIS
ANTI-AXIS
NEUTRAL
LIMIT OF GERMAN THRUSTS - FRANCE, JUNE 1940, U.S.S.R. DEC. 1942
ALLIED INVASIONS
Stalingrad
U.S.S.R.
RUMANIA
CASPIAN
SEA
BLACK
SEA

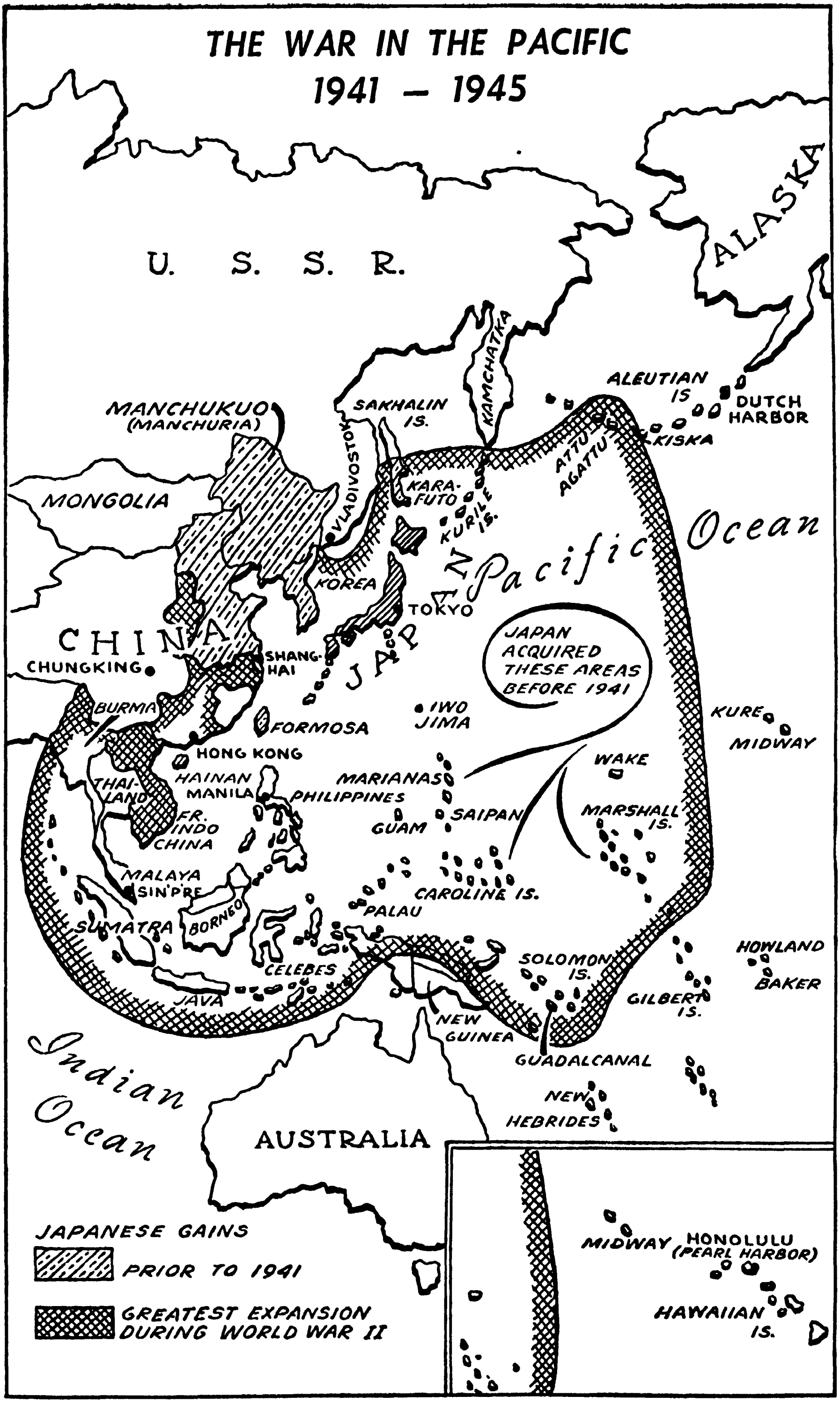
begun in July, 1945, to destroy Japanese war plants, industrial centers, railroads, docks, and other strategic areas. The American fleet, aided by British vessels, bombarded Japanese coastal cities, and plans were made for an invasion of Japan. The invasion never took place, for early in August, 1945, an American plane dropped on Hiroshima, a city of 300,000 inhabitants, a new and terrible weapon of war—an atomic bomb. Both German and Allied scientists had raced to develop the weapon. Americans had won after the United States had spent two billion dollars in secret research to discover a way to release the vast energy which scientists had long known was hidden in the atoms that make up all matter. The bomb dropped on Hiroshima destroyed the city and killed 50,000 of its inhabitants. A similar bomb, dropped on a second Japanese city, Nagasaki, caused great loss of life and much destruction. After President Truman warned the Japanese government that similar bombs would follow if it did not give up, Japan finally surrendered in August, 1945.

Formal articles of surrender were signed on board the American battleship *Missouri* in Tokyo Bay on September 2, 1945 (Tokyo time). General Douglas MacArthur directed the surrender formalities and signed on behalf of the Allies. President Truman proclaimed the day as V-J Day and asked the nation to observe it as a symbol of the "victory of liberty over tyranny." After the surrender, the occupation of Japan began. The military phases of the Second World War had ended, and the most terrible of all wars was over. After the first victory celebrations, it was realized that difficult problems lay ahead, for large areas of the world had been torn by the conflict which had lasted six years.

The Cost of War

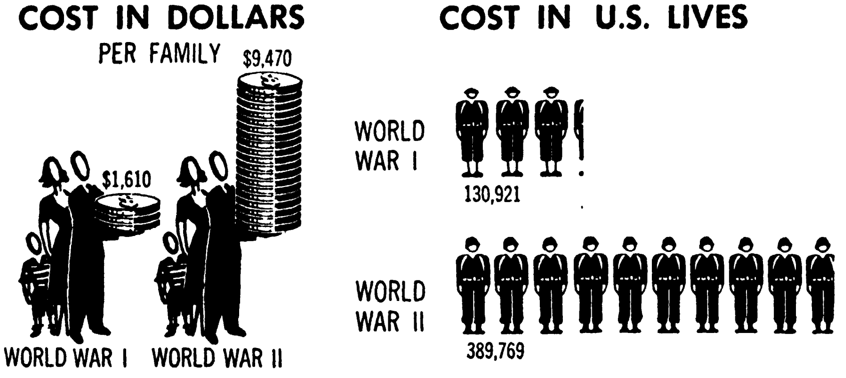
The Second World War was the costliest and most destructive in history. The total military and civilian dead of all nations reached 22,000,000, while the number of maimed and wounded has been estimated at 34,500,000. The United States shared in these vast losses: her casualties in all branches of the services all over the world exceeded 1,000,000, with almost 400,000 dead. The price of victory for each of the allied nations was staggering, but the casualties of the enemy were also great. Measured in terms of lives lost, the cost of the war was grim, but large numbers who survived were in misery and distress.

The vast destruction of property during the war is difficult to apprehend. Large armies were engaged in battles in the air, and for the first time the capitals of nations were marked for destruction. London was blitzed, and Berlin, Warsaw and Tokyo were ravaged by



THE WAR IN THE PACIFIC 1941 – 1945

air raids. Many cities, especially in Europe, lay in ruins, and the destruction of private property was appalling. The two Japanese cities, Hiroshima and Nagasaki, were completely leveled by atomic bombs, the most destructive weapon of the war. The United States, except for the Hawaiian Islands and other possessions, suffered no damage from air raids, although precautions were taken against possible attacks. However, hundreds of American merchant ships, as well as the vessels of allied and of neutral nations, were sunk, largely through the attacks of the enemy's U-boats. During the war the United States navy lost 696 vessels, among them two battleships, 11 aircraft carriers, and 10 cruisers. The losses of the British Empire totaled almost 800 ships. Germany's navy practically disappeared except for a large fleet of submarines; the Italian fleet had been sunk or captured; at the end of the war, only remnants of the Japanese navy remained afloat. The Second World War cost the Allies and neutral countries a total of 4,770 ships, aggregating 21,140,000 gross tons. Of this, the losses of the United States totaled 3,310,000 tons.



PICTOGRAPH CORPORATION

COMPARATIVE COST IN MONEY AND LIVES OF THE TWO WORLD WARS

The direct financial cost of the war has been estimated at well over a trillion dollars. Soon after the conflict was over, President Truman stated that the direct war costs for the United States alone amounted to $341,000,000,000, roughly one-third of the total direct cost to all belligerents except China, whose war costs were unknown. America's war expenditure, which forced the national debt to dizzy heights, was used not only to equip the services of the United States in the conflict, but also to aid the Allies in carrying on a global war.

The problem of financing the war was a great undertaking. Congress made large appropriations in 1940 for the national defense program, or rearmament program, but the financing of the war may be considered to have begun when the first Series E Savings Bonds were sold in May, 1941, seven months before the Japanese struck at Pearl Harbor, and continued until January, 1946. Between these two dates the United States Treasury sold $185,700,000,000 of war securities; additional borrowing raised the total to $201,000,000,000. Of this amount, seven war loan drives, climaxed by a Victory Loan, brought nearly $157,000,000,000. The Liberty Loans of the First World War, which totaled $21,438,000,000, considered large at that time, now appeared small by comparison.

The war loan drives and the sale of United States Savings Bonds between drives were conducted by the War Finance Division of the Treasury Department. The bonds were sold by volunteer groups all over the nation and its possessions. Headquarters of the War Finance Division in Washington coordinated and directed the activities of the field groups—largely volunteers—and provided pamphlets, posters, and other promotional material to stimulate interest in the drives. In addition to securing public participation in the financing program, the sales of bonds were also intended to draw into savings the increased earnings of the public and therefore to combat inflation. Bonds in denominations as low as $25 and savings stamps at ten cents each were sold. Although banks and corporations purchased a large part of the war bonds, the public exceeded each of the quotas that were set for it. As a result of government borrowing, the national debt, which was less than $49,000,000,000 in June, 1941, rose to more than $272,000,000,000 in June, 1946, or an amount in excess of $6,000 for each family in the United States.

As the national defense program got under way in 1940, the revenue laws of that year increased the rates of taxation or broadened the base of almost all sources of revenue. Corporate income taxes were increased and a new excess profits tax was introduced. Throughout the war, internal revenue taxes and other taxes were raised and new ones imposed. In 1943 Congress approved a "pay-as-you-go" plan for the federal income tax and required employers to withhold a part of each employee's income which was to apply to his income tax. Heavy taxation not only provided needed revenue but also drained off excessive purchasing power at a time when salaries and wages were at high levels and many types of goods were short; the high taxes helped to keep prices from getting out of control.

Of the total of $370,000,000,000 spent by the United States government in the five fiscal years of war from July 1, 1941, to June 30, 1946, approximately $169,000,000,000 or 46 per cent came from taxes, while the balance of $201,000,000,000 or 54 per cent was obtained by borrowing, relatively a much better showing than that of the First World War, when about one-third of the cost was defrayed by taxation. Expenditures, however, were so great in the Second World War, that the huge national debt caused grave concern, and economists pointed out that its effect on business, employment, and the cost of living would be felt for a long period of time.

The Adjustment to a Peacetime Economy

The end of hostilities brought many problems of adjustment as the nation shifted from a wartime to a peacetime economy. The demobilization of the armed forces was itself a great task, for more than 12,000,000 men and women, scattered all over the world, were in the armed services when the war ended. The great transportation organization, devised in the last months of the war to move troops from the European theater to the Pacific combat areas for the proposed invasion of Japan, was used to bring large numbers of troops home. The Navy's "magic carpet," as this system of transportation was called, helped to return almost 10,000,000 from overseas by June, 1946, an unparalleled accomplishment.

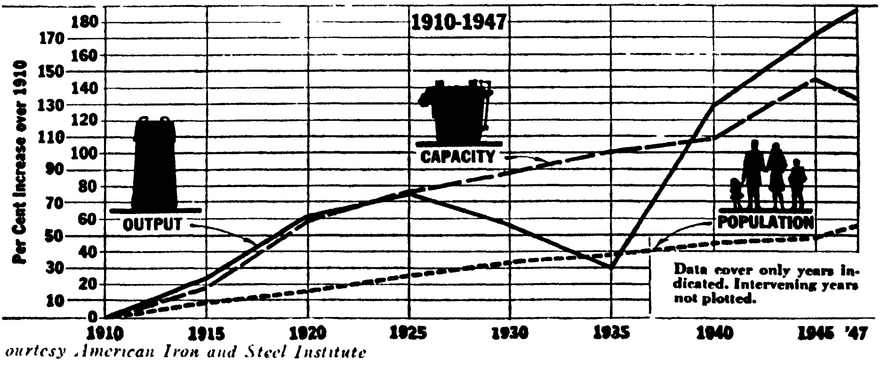
In the Army, men were discharged individually rather than by groups or units, preference being given to those who had served longest, had been overseas, had engaged in active combat, had dependents, and had received certain combat awards. A plan provided for the release of men who had accumulated eighty-five points, a requirement which was progressively lowered, especially as replacements became available. After the fall of Japan, the Marine Corps established a system similar to the Army, while the Navy and Coast Guard introduced a plan, granting one-half point for each year of age, one-half point for each month of active duty during the war, and a number of points for dependents.

Each discharged veteran received information regarding his rights and also advice about agencies which could help him find employment. Benefits included unemployment payments for a period of time, insurance, priority rights in the purchase of certain supplies and surplus war materials, and financial loans to begin business or to purchase homes. Thousands of veterans returned to secondary schools and colleges under the Servicemen's Readjustment Act of 1944 (the G.I. Bill of Rights), and higher educational institutions experienced an unprecedented expansion. The Veterans Administration was reorganized and General Omar Bradley, well-known infantry officer of the war, was made its head. Although much was done to help the veterans re-establish themselves, many found that transportation facilities were overburdened, hotels crowded, living quarters difficult to secure, certain food products scarce and expensive, and automobiles almost impossible to obtain.

The Selective Service Act of 1940, with its extensions, under which millions had been drafted, expired in 1947. Early the next year President Truman asked for new legislation to bring the armed forces to their authorized strength, and stated that "our badly depleted military strength is one of the nation's greatest dangers." The Selective Service Act of 1948 was the second peacetime draft law in the history of the nation (the first being the act of 1940). The new law provided for building up the armed forces and reserve components; it authorized a total of about 2,000,000 in the active forces of the United States. In the meantime, in 1947, on the recommendation of the President, Congress enacted a measure unifying the armed forces, making them a single National Military establishment. In place of the Secretary of the Army and Secretary of the Navy, the law provided for a single Secretary of National Defense with Cabinet status. Under him, provision was made for three co-equal departments—Army, Navy, and Air Force—each headed by a Secretary, none of whom, however, is in the Cabinet. The first Secretary of Defense was James V. Forrestal, who, in 1949, was succeeded by Louis A. Johnson.

The end of the war required a readjustment of industry from its high-speed production of war materials to peacetime production. After the surrender of Japan, the federal government cancelled more than $30,000,000,000 worth of war contracts on a basis of adjusted compensation, and the government began to work out plans to relax its wartime controls over industry, labor and prices. Industry re-tooled for peacetime needs and, in spite of shortages of tools, machinery and equipment, and labor disputes and strikes, the shift was made with surprisingly little difficulty and a minimum of unemployment. By the

STEEL CAPACITY AND OUTPUT EXCEED INCREASE IN POPULATION



Courtesy American Iron and Steel Institute summer of 1947, employment exceeded 60,000,000, the highest record in American history up to that time. President Truman reported to Congress that the nation enjoyed unprecedented prosperity, with a production for goods and services at about $225,000,000,000 a year, a figure that was surpassed in 1948.

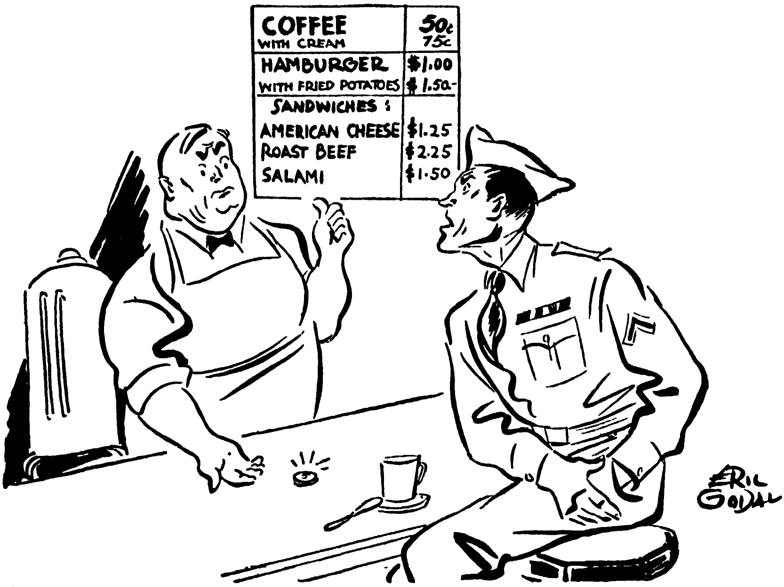
Before the war ended, but looking forward to peace and reconversion, Congress established the Office of War Mobilization and Reconversion (1944). Its purposes were: (1) to unify programs and establish policies relating to manpower and industrial needs to carry the war to a successful conclusion; and (2) to coordinate government planning of manpower and all other resources during the reconversion to peace. The agency took over the duties and functions of the Office of War Mobilization, which had been set up in 1943. It established the Surplus Property Administration to dispose of $100,000,000,000 worth of surplus war property, including war plants, war materials and agricultural commodities. Plans to sell or lease the more than 1,500 government-owned plants were begun. The disposal of surplus property abroad was handled by another agency, the Office of Foreign Liquidation, under the supervision of the Department of State. The sale of war surpluses at home and abroad presented many problems and required time, but plans were devised and carried out without great difficulty.

One of the most serious aspects of reconversion was the threat of runaway inflation. The shortages of many commodities, together with the large amount of wartime savings and the expansion of the currency and bank credits, kept prices high and brought apprehension as to whether inflation could be held in check. Shortages of raw materials and finished products were widespread. Manufacturers required new machines and tools as well as materials such as steel, rubber, wood and copper; the railroads needed equipment of all sorts; consumers demanded automobiles, refrigerators and other durable goods, the production of which had been largely cut off during the war. Many food items were in short supply, especially meat, butter, fats and flour, at a time when the people of Europe and the Orient were facing starvation and Americans were trying to aid them.

Rapidly rising prices brought demands from organized labor for higher wages, which in turn forced prices upward, arousing fears of a ruinous spiral of inflation such as affected many nations. The reconversion program was somewhat interrupted by strikes, and labor obtained three rounds of wage increases between 1945 and 1948. The constant fear of war with Russia resulted in continued large expenditures for national security, which to a degree diverted manpower and plants from producing peacetime goods. When the European Recovery

Plan was put into effect early in 1948, it imposed an additional demand on many scarce American articles.

As the war ended, many government controls were removed. In the fall of 1945 the War Production Board announced the termination of the Controlled Material Plan, which had immeasurably aided the production of war materials; the priority system of allocating materials was greatly modified. Before the close of 1945, the War Production Board was abolished and the Civilian Production Administration took over its functions. Other war agencies were dissolved and any essential activities remaining were taken over by peacetime bureaus.



Courtesy Harry Scherman, Esq., and the Book of the Month Club

THE RETURNING G.I. DISCOVERS INFLATION

Throughout the war, the Office of Price Administration (OPA) did more perhaps to regulate the daily lives of Americans than any other agency in American history. Its price regulations covered almost everything the American family ate, wore and used, and applied to several million different commodities at all levels from producer to consumer. It imposed rent regulations and administered thirteen rationing programs covering a wide variety of essential civilian goods, including automobiles, tires, gasoline, meats and fats. At its peak, the Office of Price Administration, with its headquarters at Washington, D.C., was organized into nine regional offices, 92 district offices, 305 rent area offices, and more than 3,600 regional boards, which served all the communities of the nation. The rationing of scarce goods was accompanied by the rise of organized black markets, especially in gasoline, meat and poultry, a problem that officials of the Office of Price Administration found difficult to solve.

Even before victory had been fully achieved, many articles were dropped from the ration list, and after V-J Day consolidation of some of the district offices and local boards of OPA was begun. Special interests and some consumers demanded the elimination of all government controls, though Chester Bowles, head of the OPA, with popular support, opposed the demand, insisting that it was necessary to hold the line against uncontrolled inflation. President Truman insisted upon strict controls, while a divided and turbulent Congress finally gave the President only a weak and unenforceable measure. As a result, the OPA was liquidated and there remained controls only over rents and a few scarce commodities. Meat, which had been difficult to get, was now decontrolled and appeared in larger quantities, but prices of all commodities skyrocketed. Food prices, which had advanced about 50 per cent during the war, spiralled about 60 per cent more during the last half of 1946. The inflationary rise continued, but not as rapidly as in 1946, until the fall of 1948 and the spring of 1949, when it became evident that the postwar boom was slowing down as inventories of goods increased and, in some lines, a seller's market became a buyer's market. Though the downward trend continued, food prices, especially agricultural goods, bolstered by government policies, could not find low levels, and it became evident that there would be no sharp change in economic conditions.

In attempting to solve postwar problems, though congressmen showed honest differences of opinion on many issues, a trend to return to the politics of special interests of the 1920's became evident. In 1946 a Full Employment Bill, designed to attack unemployment in periods of depression, was watered down so that when it was finally accepted by the Republican-Democrat coalition, it provided only for a board, without power, to advise the government. Bills for a Missouri Valley Authority, the extension of social security to millions not covered, a long-range federal public housing program, and appropriations for cancer research all failed. Yet congressmen rushed to secure a share in a large pork barrel measure, a River and Harbor Improvements catchall, while the desire for social security moved them to establish a congressional pension system and to increase their salaries to $12,500 with a tax-exempt expense account of $2,500 annually.

The Eightieth Congress (1947–1948) was Republican controlled and although it was severely criticized by President Truman during his campaign of 1948 for its failure to carry out his recommendations, it passed a compromise foreign aid program for global economic reconstruction and for strengthening the defenses of free nations, a program based on the Marshall Plan, which included a large sum for European recovery. It continued the Reciprocal Trade Agreements and also government supports of farm prices; it made provision for admitting 205,000 displaced persons during a two-year period, raised Social Security benefits for the needy, aged, the blind and dependent children, and reduced somewhat the tax on individual incomes. In its first session it enacted the controversial Taft-Hartley Labor law (1947) which was bitterly opposed by labor leaders.

Labor

When the United States entered the war in December, 1941, William Green, president of the American Federation of Labor, and Philip Murray, president of the Congress of Industrial Organizations, together with other prominent labor leaders, promised that labor would cooperate in the war effort to the fullest extent and they made a no-strike pledge. The promise and pledge were carried out, in general, though there were some unauthorized strikes. An exception to labor's no-strike pledge were the strikes of the United Mine Workers under its aggressive president, John L. Lewis. Early in 1943 a strike by this union forced the government to take over the bituminous mines, which led Congress to pass the Smith-Connally Act over President Roosevelt's veto, a law legalizing the government seizure of strike-bound war plants. In the fall of 1943 the bituminous miners again went on strike, and in 1945 the anthracite miners walked out. The government seized the mines in both cases, but pay increases ended both strikes. A railroad strike in December, 1943, forced the government to take over the railroads for three weeks while wage disputes were being settled. With few exceptions, however, the record of labor during the war was excellent, for the number of man-hours lost through strikes was relatively small. The War Labor Board (WLB), representing management, labor, and the public, had final jurisdiction over labor disputes and wage adjustments, and in 1942 it inaugurated a policy to limit increases of wages to 15 per cent above the level of January 1, 1941—the so-called "Little Steel formula." Protests against this policy by labor leaders because of the rising cost of living caused the War Labor Board to make modifications through vacation pay, increased wages for overtime, and in other ways.

After V-J Day and with labor's release from the no-strike pledge, a number of labor disputes, centering largely in demands for higher wages, interfered with the government's reconversion plans. Late in 1945 a serious dispute arose between the General Motors Corporation and the United Auto Workers, Congress of Industrial Organizations, when the union demanded a 30 per cent wage increase. The strike continued for 113 days and ended only after a fact-finding board recommended to the President a general wage raise of 19.5 cents an hour, although an increase of 18.5 cents an hour was finally agreed upon. The strike cost $125,000,000 in wages and $600,000,000 in lost production at a time when automobiles and trucks were scarce and in great demand.

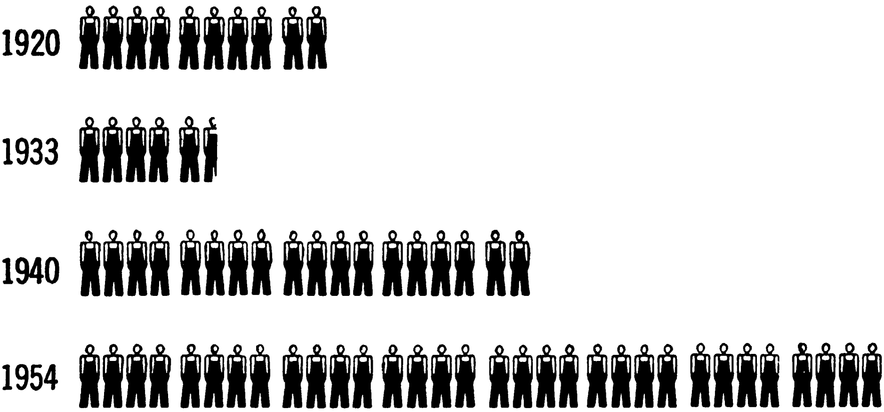
Disastrous strikes occurred in other industries: the electrical industry, telegraph communications, meat packing, steel, bituminous coal, railroads. Settlement of these disputes was generally made on the basis of an increase to employees of 18.5 cents an hour. The bituminous coal strike was marked by the government seizure and operation of the mines from May, 1946, to June, 1947. In November, 1946, John L. Lewis refused to accept the plan worked out by Secretary of the Interior Julius A. Krug, and on the declaration by Lewis of "no contract no work," 400,000 soft-coal miners "stayed home." This led to a court injunction against Lewis and a trial for contempt of court when he failed to order the miners back to work. After seventeen days he called off the strike, but the government's injunction suit resulted in a fine in the United States District Court of $3,500,000 for the United Mine Workers and $10,000 for its president. Upon appeal, the Supreme Court ruled that both the union and its president were in civil and criminal contempt, but by a narrower decision (5–4), the nine justices held that the Norris-La Guardia Anti-Injunction Act of 1932 did not prevent the federal government from using the injunction against labor unions under the circumstances. The Court confirmed the $10,000 fine against Lewis but reduced the union's fine to $700,000 if it would rescind its notice to the government of contract cancellation. This was done by Lewis on March 19, 1947.

The coal strike and the railroad strikes of 1946 resulted in a stiffening of the administration's attitude toward labor disputes. As the railroad strike began, President Truman told the nation that he would "have no alternative but to operate the trains by using every means within my power." The next day (May 25, 1946), as the President addressed a joint session of Congress on the dispute, a message was handed to him stating that the two brotherhoods which had held out against the President's compromise offer that included an increase of 18.5 cents an hour had signed the agreement and the strike was ended. In Congress, the Case Strike Control Bill, which had been considered for several months, was passed. The measure revived the weapons of court injunctions and suits against labor under the anti-trust laws, prohibited by the Norris-La Guardia and Wagner labor acts. The new bill also provided for a Federal Mediation Board to intercede in labor disputes and for a sixty-day cooling-off period before a strike could begin. The President, however, feeling that the bill went too far, vetoed it and the House sustained him. The President's request for a long-range congressional investigation into the causes of industrial disputes as a basis for permanent labor legislation was not considered.

In 1947 American organized labor, which had enjoyed more than a decade of favorable legislation, was faced with new laws of a restrictive nature. Congress passed the Labor-Management Relations (Taft-Hartley) Act over the veto of President Truman and the legislatures of thirty states enacted measures limiting the privileges and regulating the activities of labor unions. The laws were fiercely fought by the American Federation of Labor, the Congress of Industrial Organizations, the Railroad Brotherhoods (though not directly affected by the Taft-Hartley law), and by many independent unions. Labor declared war on the legislators responsible for the laws, demanding their retirement and the repeal of the legislation.

The Taft-Hartley Act recognized the right of employees to organize and to bargain with management, but declared the "closed shop"—making union membership a condition of employment—was illegal. The law set forth the conditions for collective bargaining and authorized the National Labor Relations Board—now increased from three to five members—to seek injunctions or restraining orders in cases of secondary boycotts, jurisdictional strikes, and the compulsory employment of additional help without specified duties. Among other things, the measure provided for the open inspection of the books and records of labor unions, and required union officials to declare openly that they were not Communists, an issue that had become important especially in connection with several C.I.O. unions. Those who favored the new legislation insisted that it restored a fair balance between management and labor and eliminated abuses harmful to both and to the public. Labor leaders called it a "slave law," while President Truman condemned it as discriminatory against labor and predicted that it would promote friction, but he promised to administer the law fairly. In his campaign of 1948 the President pledged himself to do everything possible to secure its repeal.

Just after the Taft-Hartley bill became law, 400,000 soft coal miners began ten-day paid "vacations" which were legal under the agreement worked out between Secretary of the Interior Krug and John L. Lewis the previous year. The walk-out again threatened to retard the steel and automobile industries and to tie up railroad transportation. After ten days Lewis signed a new wage agreement with the operators of the "captive" mines of the United States Steel Corporation, in spite of opposition from other operators, including those of the South, all of whom eventually signed the same contract. The new agreement raised the average miner's daily pay, reduced working hours from nine to eight, and provided benefits in vacation and welfare fund payments, as well as other concessions, including the right of the miners to work only when they were "able and willing." The contract showed that labor could win victories despite the Taft-Hartley law.



Union Membership in the United States

Each symbol represents 500,000 members PICTOGRAPH CORPORATION

In 1947 Congress passed another measure, opposed by many labor organizations, particularly the C.I.O. It resulted from suits filed in 1946 and 1947 totaling more than $400,000,000,000 in claims for "portal-to-portal" pay, a term first used by the coal miners in maintaining that they should be paid for the time in which they traveled to and from the gate of a mine to the point where they actually worked. The claims of the various unions were based on a court interpretation of the Fair Labor Standards (Wage-Hour) Act. Congress took the view that the judicial interpretation was incorrect and that if applied it would bankrupt many industrial concerns. A measure which was finally adopted invalidated all "portal" claims not covered specifically by labor contracts and placed a two-year limit on future claims. President Truman signed the bill stating that he did not believe it undermined the basic wage-hour standard, as some critics of the bill claimed, but urged Congress to raise the legal minimum wages and to extend the wage-hour law to workers not covered by it.

A pattern for a "second round" of wage increases by organized labor in large industries was set peacefully in the spring of 1947 when the steel and auto workers' unions within the C.I.O. signed contracts with important companies for raises of about 15 cents an hour. The steel union made a two-year, no-strike contract and received a basic raise of 12.5 cents an hour plus another 2.5 cents for "fringe" items. While there were serious labor disputes, the number of strikes and the number of men involved by the latter part of 1947 had dropped considerably. Many, however, believed that this was due to uncertainty about the working of the Taft-Hartley Act rather than to beneficial results of the law itself.

Opposition to communism, aided by developments in the international situation, became an objective of many unions. At the Convention of the United Automobile Workers, Walter P. Reuther, the union's president, removed officials who were Communists and even those who had accepted Communist support. Congress considered measures to outlaw the Communist party, but William Green, president of the A. F. of L., stated that he believed such a law would make martyrs of the Communists and suggested that foreign ideology be combatted by raising American living standards.

The cost of living reached a peak in 1948, and organized labor generally was able to secure a "third round" of wage increases, though not as large as the two that preceded it. Unimpeded by the Taft-Hartley law, a number of strikes occurred. The most significant was the spring coal strike, and once again John L. Lewis secured for the miners higher wages, an increase in the welfare fund, and the enforcement of the union's pension plan of $100 a month for every union miner sixty years of age or over with twenty-year service at the mines. A railroad strike was averted by a court injunction and intervention by the President, while maritime and longshoremen's strikes had serious results on both East and West coasts and on the Great Lakes. The General Motors Corporation averted a strike of its United Auto Workers union by granting an increase of wages which provided for tying up wages and the cost of living as determined by the Bureau of Labor Statistics, wages to fluctuate according to the price index. As organized labor prepared for a "fourth round" of wage increases at the end of 1948 and beginning of 1949, unemployment increased somewhat and it became obvious that supply had caught up with demand in a number of industries; the cost of living dropped slightly, but no sharp change in economic conditions was anticipated. The demands for increased wages became fewer and many workers were satisfied with better social benefits. However, by the fall of 1949 the unions of the steel industry were leading a demand for higher wages and for pensions.

World Rehabilitation

As a result of the war, most of the countries of Europe were prostrate and it was obvious that it would take years to repair the damage of six years of ruinous warfare. In the countries that had suffered most severely, it was beyond the ability of private enterprise to rebuild quickly enough, and the people of many European nations turned to their governments for collective action in rebuilding communities and in seeking to restore conditions necessary for full employment and prosperity. A socialistic trend therefore developed in many countries. In Britain, under the leadership of the Labour party, the government developed its program to nationalize mines, banking, transportation, utilities, and the steel industry, as well as to launch government housing projects and to put into effect a comprehensive plan of social security. In France and elsewhere, socialization made rapid gains, but these nations were forced to turn to the United States for financial aid to carry out their plans for rehabilitation.

In the years immediately following the war, the people of Europe and Asia faced actual starvation and President Truman appealed to Americans to aid in fighting world food shortages by cutting down consumption of wheat products and meat. Plans were put into effect reducing the size of the loaf and the wheat content of white bread, and less grain was provided for the making of liquors and beer and for feeding livestock. Private drives were carried on to send food and clothing to the stricken nations. The task of helping to feed and clothe a large part of the world's population was a difficult one.

The United Nations Relief and Rehabilitation Administration (UNRRA), which was set up in November, 1943, to aid the victims of war and invasion, took up the work of relief. Led by the United States, forty-eight nations agreed to aid the peoples of liberated countries with food, clothing, agricultural implements, seed, and other supplies; the contributions of the nations were levied on the basis of national income. Herbert H. Lehman, former governor of New York, became Director-General of UNRRA, and he was succeeded in 1946 by Fiorello H. La Guardia, ex-mayor of New York City. Disbanded in 1947, UNRRA had distributed more than $3,500,000,000 worth of supplies. In that year the more comprehensive European Recovery Plan was formulated. In the meantime, the United States had granted loans and aid to many governments, including a loan to Britain for $3,750,000,000.

Plans to Stabilize International Relations

Before the war had ended statesmen realized the momentous problems that peace would bring. Therefore, in July, 1944, representatives of forty-four nations met at Bretton Woods, New Hampshire, to plan international monetary arrangements for the postwar world. The conference agreed to establish a large monetary fund to which each member nation would contribute on the basis of its financial ability for the purpose of stabilizing the money values of their currencies and to assist in international exchange connected with world trade. Under the plan the International Bank for Reconstruction and Development, or World Bank, was established. The Articles of Agreement adopted at Bretton Woods set forth the aims of the plan, which of course centered in reconstruction. Participation by the United States was authorized when Congress enacted the Bretton Woods Agreement law of 1945.

The World Bank began operations in June, 1946, with headquarters at Washington, D.C. Its authorized capital was $10,000,000,000, of which $7,670,000,000 was subscribed by thirty-eight of the nations represented at the Bretton Woods Conference; by 1949, eight other countries had become members, bringing the total subscriptions to $8,286,000,000, although each nation paid but 20 per cent of its allotment; 2 per cent in gold or dollars and 18 per cent in its own currency. The unpaid 80 per cent of the subscribed capital was reserved to meet the bank's obligations. The subscription of the United States totaled $3,175,000,000, of which 20 per cent, or $635,000,000, was paid in.

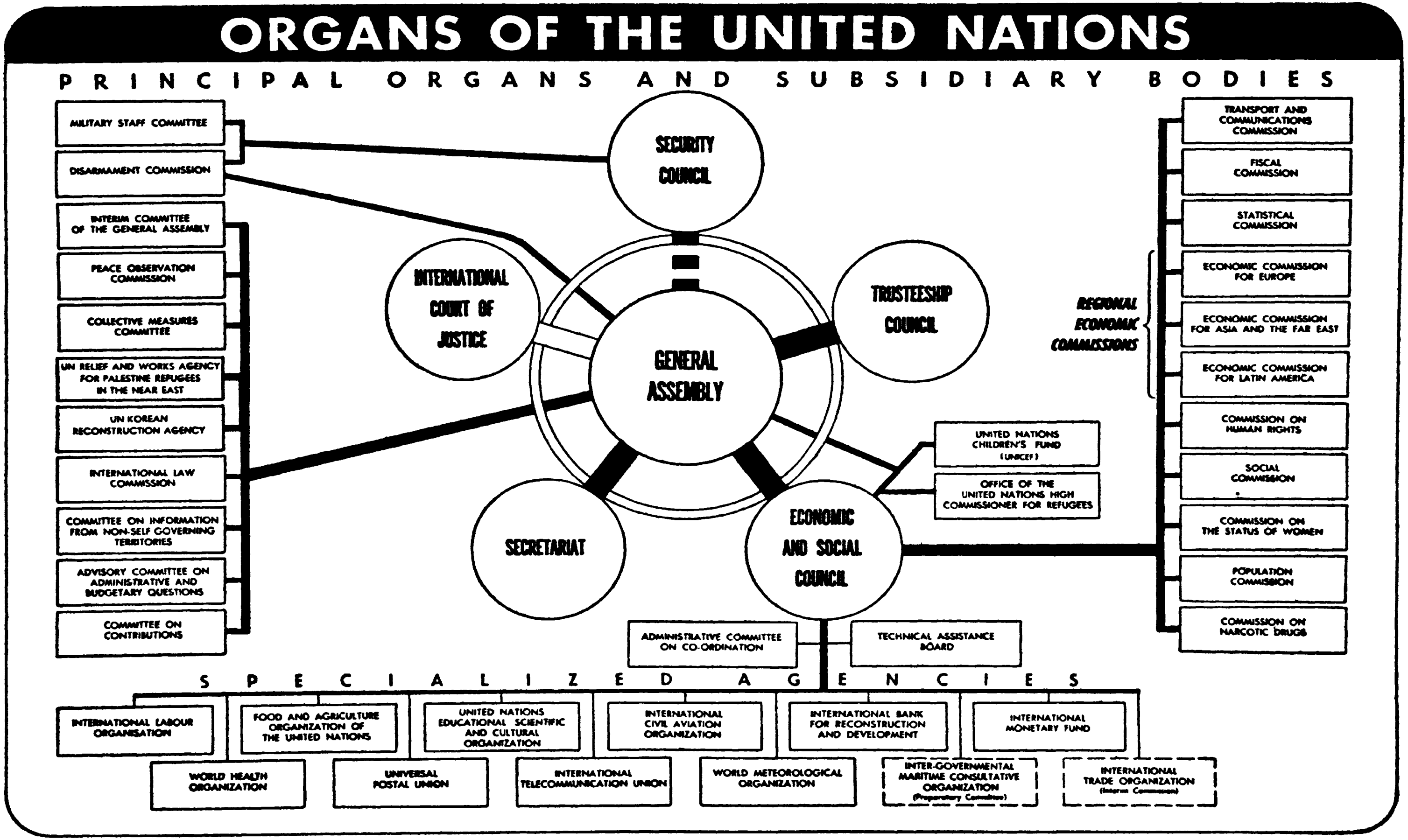
Loans by the World Bank are financed out of the paid-in portion of the capital stock and from funds borrowed from the capital markets of the world. Beginning in 1947 loans were made to member nations and to private corporations. Loans varied from those granted to the Netherlands, Denmark and Luxembourg to those in the form of ten-year serial mortgage notes granted to Dutch shipping companies, guaranteed by the Kingdom of the Netherlands.

The hope to maintain international peace after the war resulted in a conference held at Dumbarton Oaks, a former private estate just within Washington, D.C. Here representatives of the United States, Britain, the Union of Soviet Socialist Republics and China drew up plans for an international peace organization after the war. Proposals were made for an organization similar to the decadent League of Nations, but with power to enforce its decisions in order to control any aggressor nation. As a result of the conference, President Franklin D. Roosevelt issued a call for the United Nations Conference on International Organization to meet at San Francisco on April 25, 1945. The President expected to address the assembled delegates, but died two weeks before the meeting.

The United Nations Conference, held from April 25 to June 26, 1945, at San Francisco was a most impressive gathering of delegates from all over the world, made colorful by different races, languages and costumes. Presiding over the conference was Edward R. Stettinius, American Secretary of State, successor to Cordell Hull, who had planned the conference but had been forced to resign because of illness. After two months of heated debate, the Charter of the United Nations was finally completed and on June 26 it was signed by the representatives of fifty nations; later several other nations were admitted to membership. The Charter pledged the member nations to maintain international peace and security and to cooperate in establishing political, economic and social conditions favorable to the attainment of these objectives. Six major organs were created to accomplish the purposes of the United Nations: the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, the International Court of Justice, and the Secretariat.

The General Assembly, composed of delegates from all the member nations, considers any matter within the scope of the Charter except issues and disputes already on the agenda of the Security Council. The Security Council is composed of eleven members, of whom five—the United States, the United Kingdom, France, U.S.S.R. and China—are permanent and the other six elected; it is charged with the responsibility of maintaining peace and security, and to enforce its mandates it can call on the armed forces and for other assistance of member nations.

The Economic and Social Council established several agencies to carry on various aspects of its work. Among these, the United Nations Educational, Scientific and Cultural Organization (UNESCO) is designed to promote international intellectual cooperation through the free exchange of information and ideas on education, art and science. The Food and Agricultural Organization is given the task of raising nutritional levels throughout the world. The International Labor Organization, formerly an agency of the League of Nations, attempts to improve working conditions in all countries. The function of the Provisional International Civil Aviation Organization is to unify international aviation procedures. The International Bank for Reconstruction and Development (World Bank) was placed under the jurisdiction of the Economic and Social Council. The World Health Organization was planned to coordinate the battle against disease and to take


ORGANS OF THE UNITED NATIONS
PRINCIPAL ORGANS AND SUBSIDIARY BODIES
MILITARY STAFF COMMITTEE
DISARMAMENT COMMISSION
INTERIM COMMITTEE OF THE GENERAL ASSEMBLY
PEACE OBSERVATION COMMISSION
COLLECTIVE MEASURES COMMITTEE
UN RELIEF AND WORKS AGENCY FOR PALESTINE REFUGEES IN THE NEAR EAST
UN KOREAN RECONSTRUCTION AGENCY
INTERNATIONAL LAW COMMISSION
COMMITTEE ON INFORMATION FROM NON-SELF GOVERNING TERRITORIES
ADVISORY COMMITTEE ON ADMINISTRATIVE AND BUDGETARY QUESTIONS
COMMITTEE ON CONTRIBUTIONS
SECURITY COUNCIL
INTERNATIONAL COURT OF JUSTICE
GENERAL ASSEMBLY
TRUSTEESHIP COUNCIL
SECRETARIAT
ECONOMIC AND SOCIAL COUNCIL
UNITED NATIONS CHILDREN'S FUND (UNICEF)
OFFICE OF THE UNITED NATIONS HIGH COMMISSIONER FOR REFUGEES
TRANSPORT AND COMMUNICATIONS COMMISSION
FISCAL COMMISSION
STATISTICAL COMMISSION
REGIONAL ECONOMIC COMMISSIONS
ECONOMIC COMMISSION FOR EUROPE
ECONOMIC COMMISSION FOR ASIA AND THE FAR EAST
ECONOMIC COMMISSION FOR LATIN AMERICA
COMMISSION ON HUMAN RIGHTS
SOCIAL COMMISSION
COMMISSION ON THE STATUS OF WOMEN
POPULATION COMMISSION
COMMISSION ON NARCOTIC DRUGS
ADMINISTRATIVE COMMITTEE ON CO-ORDINATION
TECHNICAL ASSISTANCE BOARD
SPECIALIZED AGENCIES
INTERNATIONAL LABOUR ORGANISATION
FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANIZATION
INTERNATIONAL CIVIL AVIATION ORGANIZATION
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL MONETARY FUND
WORLD HEALTH ORGANIZATION
UNIVERSAL POSTAL UNION
INTERNATIONAL TELECOMMUNICATION UNION
WORLD METEOROLOGICAL ORGANIZATION
INTER-GOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION (Preparatory Committee)
INTERNATIONAL TRADE ORGANIZATION (Interim Commission)

The United Nations

measures to raise the health standards of member nations, while the International Refugee Organization was established to aid in relocating refugees and displaced persons.

The first sessions of the General Assembly of the United Nations were devoted to organization. The General Assembly elected Trygve Lie of Norway as Secretary-General and named the members of the different organs of the United Nations so that they could set up their machinery. It established an Atomic Energy Commission to study the problem of atomic control. It organized the Trusteeship Council when a number of nations agreed to act as trustee for regions in Africa and the Pacific which had been mandates under the League of Nations; the United States became the trustee for the former Japanese mandated islands: the Marshalls, the Carolines and the Marianas. The Assembly named to the Council an equal number of non-trusteeship nations, including Russia and China. The United Nations also took over a number of useful assets of the disbanded League of Nations.

The work of the United Nations was handicapped by the failure of the great powers to agree to the terms of peace treaties with Germany and Austria, although peace treaties were concluded with Italy, Rumania, Bulgaria, Hungary and Finland. The efficiency of the United Nations was also retarded by the opposing views of the two great blocs: the Anglo-American and Russian. Yet an encouraging beginning was made on a number of pressing world problems, and international tensions were eased in Iran, Greece, Germany, Palestine and southern Asia. The work of the Economic and Social Council and the Trusteeship Council gave hope for future achievements. The attitude and actions of Russia, however, in exercising the right of veto in the Security Council marred the cooperation necessary to carry out the complete aims of the United Nations. Russia was especially active in vetoing the admission of new members, but that nation was also responsible for blocking solutions to many vital problems, as for example, the control of atomic power. The ideal of "One World" as set forth by Franklin D. Roosevelt and Wendell Willkie was fading, and the breach between the East and the West was widening.

Although Russia cooperated well with her Allies during the war, she refused to work jointly with the major powers after the conflict was won. Some Americans believed that this was because of the desire of Russian leaders to dominate the world through the spread of communism. Many of Russia's satellite nations had been won by fifth column penetration and the strong-arm tactics of Communist minorities. After the war, Russia began to increase the number of her satellites and imposed communism on the regions of Germany, Austria, and distant

Korea that she controlled. Russian leaders also schemed to extend their system southward into Greece, Turkey and Iran, northward into the Scandinavian countries and Finland, and westward into Italy and France, as well as into other parts of the world. The advances of Communist forces in China brought a realization that half the world might soon be brought under Communist control. In the United States, revelations of Communist infiltration and the activities of secret Communist sympathizers in government positions shocked the nation. As Americans condemned Russian aggression, Russian leaders declared that Americans were warmongers who sought global domination in order to insure the success of the American capitalistic system, and to prove their accusations they cited examples of racial, economic and social discrimination and inequalities in the United States and the influence of private business interests upon government.

Among the many problems of the postwar period that of international commerce was a serious one. The tremendous demand for American goods presented the need for a reduction in tariff rates, which under the Hawley-Smoot tariff law of 1930 were extremely high. Imports were relatively small, for without dollars secured from the sale of their products to the United States, foreign governments could not pay for their purchases in the United States except by borrowing dollars. In 1947 the United States and twenty-two other nations, engaged in two-thirds of the world's commerce, agreed to cut tariff rates. The United States pledged itself to reduce duties on a large number of articles up to 50 per cent as permitted by the Hawley-Smoot law and the Reciprocal Trade Agreements Act of 1934, which had been extended from time to time.

Later in 1947 another step was taken in lowering world trade barriers at a United Nations Conference on Trade and Unemployment, held at Havana, Cuba. Rerpresentatives of sixty nations, engaged in 90 per cent of all international commerce, attended the conference, but Russia refused to send delegates. A charter was drawn up at the Havana meeting to create an International Trade Organization (ITO), which was to become an agency of the United Nations, responsible to the Economic and Social Council, after the charter was ratified by the member nations. The charter laid down a detailed code of rules to govern trade relationship and the ITO was designed to promote world trade and to stimulate employment in order to raise living standards all over the world.

A New Turn in Foreign Policy

Threatening moves of Russia toward Greece and Turkey were responsible for the beginning of a change in American foreign policy. In an address to a joint session of Congress on March 12, 1947, President Truman announced a plan which aimed at stopping the spread of Communistic totalitarianism and providing aid for nations trying to uphold the institutions of freedom. He declared: "The seeds of totalitarianism are nurtured by misery and want. They spread and grow in the evil soil of poverty and strife. They reach full growth when the hope of a people for a better life has died. We must keep that hope alive. . . . If we falter in our leadership, we may endanger the peace of the world—and we shall surely endanger the welfare of our nation." He insisted that the United States "must help free peoples to maintain their free institutions and their national integrity against aggressive movements that seek to impose upon them totalitarian regimes."

President Truman emphasized the fact that the Greek government was being threatened by the terrorist activities of a few thousand guerrilla forces led by Communists. The survival and national integrity of both Greece and Turkey, he averred, were necessary to prevent chaos in the Middle East. He asked Congress to provide assistance to the two nations in the amount of $400,000,000 for the period ending June 30, 1948, and requested authority to send civilian and military personnel, if desired by Greece and Turkey, to aid them in their tasks of reconstruction. Bi-partisan majorities in both houses of Congress authorized the President to extend military and economic aid of $300,000,000 to Greece and of $100,000,000 to Turkey. The President was also authorized to send military and naval missions to the two countries, and to suspend the program at any time if the Security Council of the United Nations found it "unnecessary or undesirable."

The proposal of the President and the action of Congress were opposed by many at home and abroad. Within the United States, former Vice-President Wallace led a movement in opposition to the plan. Many insisted that if world peace was being threatened in Greece, the matter should be referred to the Security Council; they felt that if the United States took action alone it might weaken the United Nations and undermine the cause of peace. In reply, the President and the Senate pointed out that the United States upheld the authority of the United Nations.

Many saw in the Truman Doctrine a program to defend and extend the democratic system throughout the world. It was hailed as a new turn in American foreign policy. However, the government of the Soviet Union regarded the aid given Greece and Turkey as a threat to Russia aims and violently opposed the plan, as well as a new program that was being formulated to aid the nations of western Europe: the European Recovery Program.

The European Recovery Plan

Early in June, 1947, two weeks after Congress had enacted the Greek-Turkish aid law, Secretary of State Marshall delivered an address at a Harvard Commencement in which he set forth the principles of American policy toward the postwar rehabilitation of Europe. He announced the intention of the United States to aid European nations in their recovery plans, and stated: "In considering the requirements for the rehabilitation of Europe, the physical loss of life, the visible destruction of cities, factories, mines and railroads were correctly estimated, but it has become obvious during recent months that this visible destruction was probably less serious than the dislocation of the entire fabric of European economy." By the summer of 1947, UNRRA had suspended operations in Europe, after having expended $3,500,000,000, while during the two years after the war the United States had expended $10,000,000,000 in credits, grants, and loans for aid abroad. Yet economic recovery had made little headway.

Secretary of State Marshall suggested that European countries requiring American aid should cooperate in drawing up a program to present their needs. Britain and France quickly took up the suggestion which became known as the Marshall Plan. British Foreign Secretary Bevin and French Foreign Minister Bidault, after consulting Prime Minister Molotov of the Soviet Union, issued invitations on July 3, 1947, to all the European nations (except Spain) to participate in a conference at Paris for the purpose of discussing a unified reconstruction program.

On July 12, 1947, representatives of sixteen European nations met at Paris. By this time the Soviet Union had taken a hostile attitude toward the conference and, together with her eight satellites, declined the invitation. The Conference on European Economic Cooperation appointed a number of committees to study the needs of the various parts of Europe, including western Germany. At its final session in September, 1947, the conference adopted a report which called for a total of $21,780,000,000 in credits and loans from 1948 to the end of 1951. The report assumed that the International Bank for Reconstruction and Development and private investors would extend additional credits of a little more than $3,100,000,000 during the four-year period for the purchase of machinery and industrial equipment, thus reducing the necessary American aid to about $19,000,000,000. The sixteen participating countries pledged themselves to internal financial and economic stabilization and to mutual aid among themselves. The program provided for achieving stabilized national currencies, lower trade barriers between the nations, common pools of power resources, and standardization on railroads. Production goals were set for agriculture, industry and mining.

On receiving the report, President Truman summoned Congress and asked more immediate aid to Britain, France and Italy, and for $17,000,000,000 for the European Recovery Program (ERP), an amount to be expended by the summer of 1952, for the relief of European countries and for rebuilding European industries to make that continent self-supporting again. Such aid was in harmony with the United Nations Charter, and an economically strong Europe was essential to the prosperity of the United States. The young United Nations could not undertake such a program and the United States therefore proposed to do so.

In accordance with the request of the President, Congress voted more than half a billion dollars for "stop-gap" aid to Britain, France and Italy. In April, 1948, it passed the Foreign Assistance Act, which appropriated $5,300,000,000 for the first year of the European Recovery Program, and Congress took the attitude that additional appropriations would be made, beginning in 1949, on the basis of how well the plan worked. Most Americans believed that such European aid was necessary, though some objected, especially on the grounds that England and France, nationalizing many of their industries, were moving, together with other European countries, in the direction of establishing socialist states. The program, too, had political implications, for in view of the Communist advances made in Europe since the war and the growing chasm between the East and the West, it encouraged the democratic nations of western Europe to work out unified political and economic arrangements of the United Nations in order to safeguard their lands and their democratic institutions from totalitarian aggression.

Early in 1949 the Organization for European Economic Cooperation (OEEC) reported that much progress had been made among nineteen nations that had been aided by the economic recovery program and asked for several billions for the second year of operation. In April, President Truman signed a bill passed by Congress authorizing an expenditure of $5,430,000,000 to carry the European Recovery Program through June 30, 1950.

The North Atlantic Pact

The threat of Russian aggression caused many nations to continue to keep large armies and navies. For the fiscal year from July 1, 1949, to June 30, 1950, the military budget of the United States reached $15,000,000,000, an amount dictated largely by the necessity of keeping the nation strong against any military moves of Russia. The fear of the nations of western and northern Europe against Russia aggression resulted in the Atlantic Security Alliance, or North Atlantic Pact, which was sponsored by the United States.

In April, 1949, the United States and eleven other non-Communist nations [1] signed an agreement which pledged each of them to aid any member nation or nations that might be attacked by an aggressor. When the document was signed President Truman stated:

> What we are about to do here is a neighborly act. We are like a group of householders, living in the same locality, who decide to express their community of interests by entering into a formal association for their mutual self-protection. . . .

To put the pact into operation after it was signed, it was necessary to secure ratification by the United States Senate and by the Parliaments of the six other original sponsors: Belgium, Canada, France, Luxembourg, Netherlands, and the United Kingdom. In 1951, the newly established defense community of the Western world streamlined its organization and the abbreviated designation "NATO" came into general use.

Although a simple document, the North Atlantic Pact was a great step for the non-Communist nations to take, and Russian leaders denounced the pact as aggressive. The agreement, however, would not automatically cause the United States to go to war in the event of an attack on one or more of the member nations, but this country would be morally obligated to aid the other members in such an eventuality. It was expected by those who signed the pact that the United States would give billions of dollars in arms and other fighting equipment and that in return the United States would get island air bases and other vital areas that would be necessary if war should come. The North Atlantic Pact, ratified by the Senate in July, 1949, was the second multilateral defensive agreement signed by the United States at this time, the first being the Western Hemisphere Pact, made in September, 1947, at Rio de Janeiro; the terms of the two pacts were quite similar.

The North Atlantic Pact reflected the troubled state of the world in the mid-twentieth century, several years after the military phases of the Second World War had ended. It was not surprising that the most destructive of all wars should leave political, economic, and social instability in its wake that would take years to overcome. Unrest continued as the desire for universal freedom, social justice, prosperity, and peace spread into all parts of the world made smaller by man's inventiveness in transportation and communication. The part the United States, now a great Power, should take in global affairs became clearer to most Americans, but the responsibilities of such leadership were also recognized. The search for peace in a new Atomic Age was the chief concern of men everywhere, and the United States sought in various ways to aid in solving the problem in a world divided by the ideologies of the East and the West. In spite of the inadequacies of the United Nations, that organization appeared to be the chief hope of ending warfare and of bringing order and security to a troubled world.

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[1] These nations were: Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, United Kingdom, and the United States. Although far removed from the North Atlantic area, Greece and Turkey were admitted into the organization in 1951.

CHAPTER XXXI

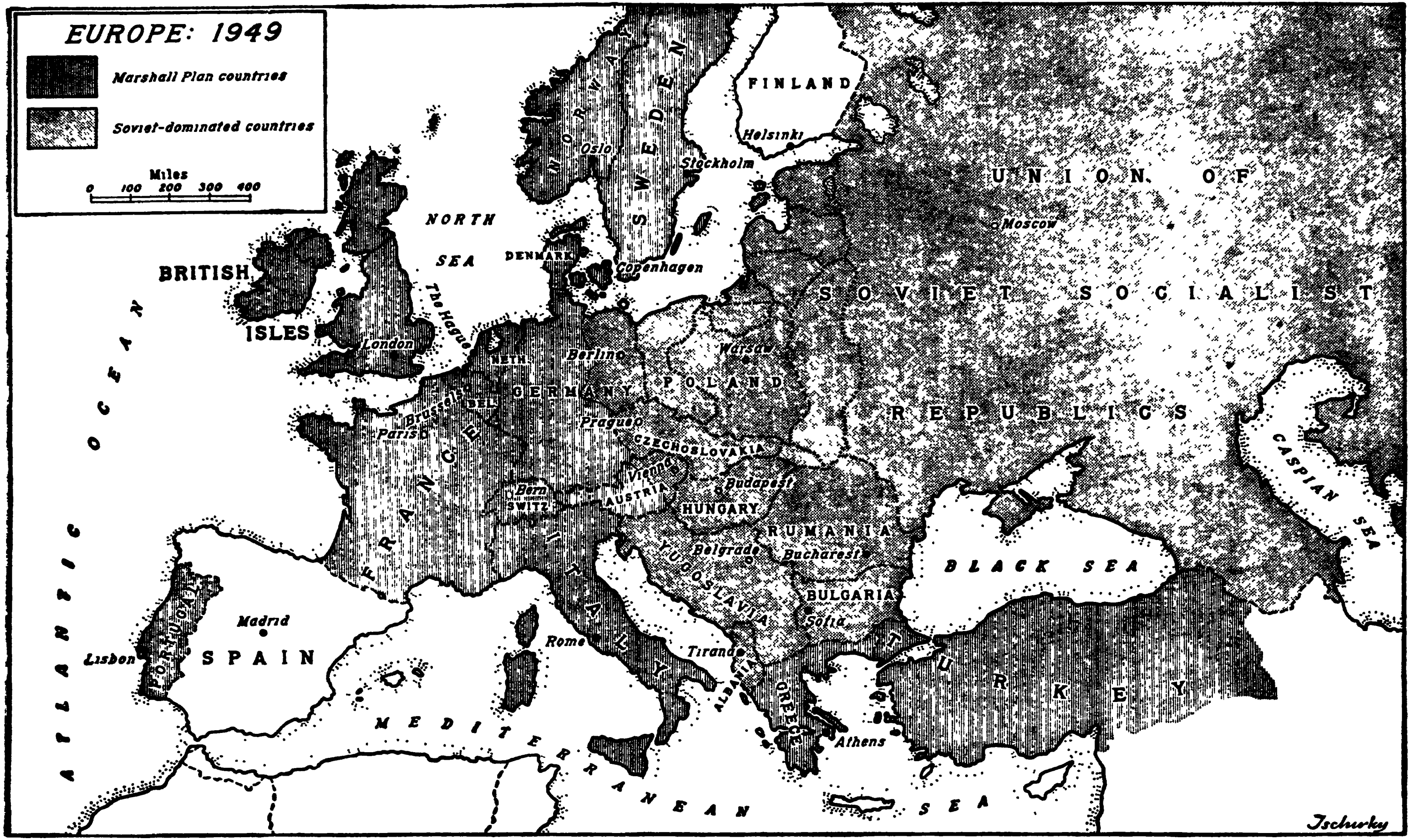
Threshold of the Atomic Era

The Mid-Twentieth Century

Although in 1950 the world was in a troubled and restive state because of international tensions, the United States was experiencing material prosperity. Industry and business flourished, profits were high and unemployment had almost vanished. Yet many serious difficulties confronted the nation. Among these were problems of rising inflation, of high taxation, of inadequate housing, of agricultural surpluses, of civil rights and of the control of atomic energy, in addition to the designs of Soviet Russia to capture free nations and extend communism wherever possible throughout the world.

Business activity in the United States in 1950 surpassed all previous peacetime levels. While the nation had escaped direct war destruction, the continued insatiable demands of the fighting forces, the aid granted to the free countries in goods, services, money and credit, and pent-up consumer needs pushed up business and industrial production during the post-war years and brought about levels of unexampled peacetime prosperity. The volume of national gross production at the mid-century was reaching toward the $300,000,000,000 mark and the total number of employed persons exceeded 62,000,000. A large part of industry reverted from wartime to peacetime operations without a serious business recession such had followed earlier conflicts.

Although the United States had greater material power and wealth than any other nation on earth, many of its citizens were troubled by a keen sense of international insecurity. The hope at the end of the Second World War, especially through the instrumentality of the United Nations, that international peace would be restored now began to dim. The expectation that the Soviet Union would cooperate to heal the wounds of the world and build a more secure international order came to an end. The belief that the United States would hold a monopoly on atomic weapons of war for at least a number of years was shattered. Hopes were frustrated and emotions upset by revelations that, even in


EUROPE: 1949
Marshall Plan countries
Soviet-dominated countries
Miles
0 100 200 300 400
FINLAND
Helsinki
NORWAY
Oslo
SWEDEN
Stockholm
Copenhagen
DENMARK
NORTH SEA
BRITISH ISLES
London
The Hague
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Brussels
Paris
FRANCE
GERMANY
Berlin
Prague
POLAND
Warsaw
CZECHOSLOVAKIA
Vienna
AUSTRIA
Bern
SWITZ.
HUNGARY
Budapest
RUMANIA
Bucharest
Belgrade
YUGOSLAVIA
BULGARIA
Sofia
Tirana
ALBANIA
GREECE
Athens
TURKEY
ITALY
Rome
SPAIN
Madrid
PORTUGAL
Lisbon
ATLANTIC OCEAN
MEDITERRANEAN SEA
BLACK SEA
CASPIAN SEA
UNION OF SOVIET SOCIALIST REPUBLICS
Moscow
Tschurky

the United States, Communists had penetrated into high places and were working in the interests of the Kremlin.

As a result of the attitude and actions of Russia after the Second World War, revolutionary changes took place in American foreign policy. In order to contain Russia and to prevent the spread of communism, the Truman Doctrine, the European Recovery Plan, the North Atlantic Treaty Organization (NATO), followed by various plans for mutual security with free nations, were established. Powerful armaments and great fighting forces supported the diplomacy of the Department of State.

The United States and the Korean War

At the close of the Second World War Korea, which had been annexed by Japan in 1910, was occupied by two of the Allied Powers. As provided by the Moscow Conference of 1945, Russian troops occupied the northern half of the peninsular down to the 38th Parallel and American troops occupied the southern half. Complete independence was guaranteed to Korea after a maximum five-year period of Allied trusteeship. The intention was to hold elections and make the whole country an independent republic.

Russia, however, refused to allow a UN commission to enter North Korea for the purpose of supervising free elections. Instead the Soviets set up a puppet government, which, in May, 1948, proclaimed jurisdiction over all Korea. Its capital was Pyongyang. In South Korea, elections were held under UN supervision and in August, 1948, the Republic of Korea was proclaimed, with Seoul as its capital. Syngman Rhee, long a worker in exile for Korean independence, was elected president of the Republic.

On New Year's Day of 1949, Russia announced that she had withdrawn her occupation troops from North Korea. A few months later the United States withdrew her last forces from South Korea. But through their puppet government the Communists controlled the northern area. In June, 1950, the North Koreans invaded the southern part of Korea. President Truman immediately ordered United States air and sea aid to the South Koreans as well as American troops from Japan. The UN Security Council, at that time boycotted by Russia, asked UN members to "furnish such assistance to the Republic of Korea as may be necessary to repel the armed attack."

Within six weeks South Korean and United States' troops had been driven to a narrow beachhead in southeastern Korea. After several months of hard fighting, UN forces, largely American, together with sufficient supplies, had reached Korea and a counterattack was begun.

By the end of 1950 the territory south of the 38th Parallel — the dividing line between North and South Korea — had been recovered and UN forces were sweeping over parts of northern Korea.

The North Koreans were now aided by large numbers of Chinese Communist forces, called "volunteers." Drives from the north again forced UN troops south of the 38th Parallel. Back and forth across this line a war of attrition was carried on. The conflict, which had evidently been started at the instigation of the Soviets, was waged with the aid of Russian supplies.

General Douglas MacArthur was the commander of UN forces in Korea until his recall in April, 1951. President Truman removed him from command because the general favored stronger war measures, including the use of Chinese Nationalist troops. Truman and other leaders were afraid that stronger measures would lead to a third world war. MacArthur returned to the United States and received a hero's welcome in several cities. He appeared before Congress and dramatically defended his views for bringing the Korean War to an end.

Discussions for an armistice in Korea were carried on during the war, but it was obvious that the Soviets, who were in the background of the negotiations, did not want peace. After two years of discussion — in July, 1953 — an armistice was signed at Panmunjom which brought the bloody conflict to an end. As the last shot was fired, the battle line was in general the same as prevailed before the North Korean Communists invaded South Korea. The armistice brought no actual peace — simply an uneasy truce. Its provisions required a peace conference to be held within ninety days, but time passed without any action. Resorting to their usual stalling tactics, the Communists insisted upon obtaining terms the UN had voted against. They wanted the peace conference to include nations which had no part in the war. The post-armistice discussions dragged on until 1954, when an agreement, favorable in many respects to Communist demands, except that Red China be seated in the UN, provided for a mid-summer conference at Geneva. However, it was the problem of Indo-China that was made the center of discussion.

The United States contributed about 50 per cent of the fighting men in the Korean War, while South Korean troops totalled more than 40 per cent. The remainder came from Great Britain, Canada, Australia, France, Turkey, Greece and other United Nations countries. About 94 per cent of the air power was supplied by the United States, although air units from Australia and the Union of South Africa also took part in the conflict. Both UN and Communist casualities were extremely high. Included in the 144,000 casualties of the United States were 26,000 known dead and 8,000 missing. In addition to the tragic loss in man power the United States expended more than $15,000,000,000 in carrying on the war. In Korea, civilian casualties were large and thousands were made homeless. Long lines of refugees traveled from one place to another. Agriculture, industry and transportation were destroyed all over the country.

The United States and the Fall of Indo-China

After the Second World War a restless movement for immediate independence spread over the countries of Asia which were under western domination. Britain, long confronted by demands for independence by India took final steps toward solving the problem. The Dutch also worked out arrangements in Indonesia. But France was a little slower than Britain and Holland in dealing with the problem of colonial decay. From the close of the Second World War France carried on a conflict in Indo-China, a country situated in southeastern Asia.

Early in 1945 France had announced the intention of reorganizing Indo-China, which was an administrative federation of one colony known as Cochin-China, four protectorates and a special territory. The plan was devised to organize the area into five states constituting a federal union, with limited self-government under a French governor-general. France was not able to carry out the plan in its entirety, chiefly because of difficulties it encountered in Vietnam in the north.

The Republic of Vietnam had been recognized early in 1946 as a free state within the Indo-Chinese Federation and the French Union. However, Vietnam leaders, headed by Dr. Ho Chi Minh, a Communist, demanded a greater measure of autonomy and the cession of certain rich rice areas and other territory. The French refused and Communist-led Vietnamese groups attacked the French garrison and civilians in Hanoi, an important transportation center. For years French troops fought the Communists, and guerrillas on both sides held back-country areas. From time to time agreements were reached and the three provinces of Vietnam, Cambodia and Laos emerged. But fighting continued.

On July 21, 1954, at the Geneva Conference, France made peace with her Communist enemies in Indo-China, soon after the fall of the fortress Dien Bien Phu and the Iron Curtain clanked down on 12,000,000 persons in Vietnam. The Communists got 61,000 square miles of territory and important resources of rice, coal and iron, as well as major seaports. And according to the agreement elections were to be held in the other areas within two years, which led to the possibility that the French could be entirely voted out of Indo-China.

The United States and her allies lost a battle in the conflict with Communism in Indo-China. They lost because their ranks were weakened by divided council over how to proceed and from continued hesitation at Paris. The military effort had been weakened by the French failure to solve the colonial problem and their diplomacy was frustrated as much by their own differences as by the wily maneuvers of Soviet Foreign Minister Molotov and Red China's Premier Chou En-lai. The negotiated peace which French Premier Mendes-France signed with the Reds at Geneva recognized a state of affairs which had passed beyond his control or that of such Allied leaders as Prime Minister Churchill and President Eisenhower.

WILL WE TAKE HIS I.O.U.?

France and her native allies in Indo-China had been backed by $3,000,000,000 altogether in American aid, although American forces were not used. Yet the rebel Communist army that started with numerical inferiority and poor arms had won. In the last critical months of the war, the Allies did not succeed in developing any alternative plan for negotiating an end to the fighting, although one proposed by Secretary of State Dulles could not be acted upon in time by Washington, London and Paris.

The United States refused to sign the "Final Declaration" at the Geneva Conference which ended the Indo-China War. Those who did sign included the delegates of Great Britain, France, Soviet Russia and Communist China. Then, in a separate "Declaration," the United States promised not to resort to force to upset the truce and to "view with grave concern" the use of force by others.

The United States and China

The surrender of Japan in 1945 touched off a race between Nationalist and Communist forces for the control of China. A Political Consultative Council representing all groups was agreed to, but in 1946 fighting broke out again, with the Communists controlling northern and central Manchuria and northern China. The Nationalist government under Chiang Kai-shek was faced with problems of reconstruction, bureaucratic corruption, inflation of the currency and the misery of the peasants. In the background was the cold war between the United States and the U.S.S.R.

Under the leadership of a brilliant peasant, Mao Tse-tung, the Communists were aided by physical and moral support from Russia. Mao shrewdly identified his movement with nationalism, promising a better life for the masses. Diplomatic moves by the United States failed to bring about any agreement between the warring factions and American military supplies sent to Chiang Kai-shek proved completely ineffective to bring about success. The Communists condemned the United States for prolonging the civil war by helping the Nationalists, yet the Red armies sped from victory to victory. By the end of 1949 all China except Formosa and nearby islands was under Communist control. The Nationalist regime was barricaded on Formosa, but Chiang Kai-shek still claimed that his government was the legitimate one.

The Communists set up a People's Republic of China with the capital at Peiping. The government was the soviet type. After prolonged negotiations, the People's government and the Soviet Union signed a thirty-year treaty of friendship and mutual aid in 1950. Its published terms provided among other things for a $300,000,000 Soviet credit. The Communist regime was recognized as the legal government of China by a number of nations, including Britain, although the United States refused recognition. China's Red government was also unsuccessful in its efforts to secure a place in the UN. The Chinese Communists consolidated their power and began the task of imposing Marxist-Leninist doctrines on the nation.

The Peiping regime's policies were overshadowed by its participation in the Korean War against UN forces. In the meantime it began a five-year plan based largely on the Mutual Aid Pact with Russia. The aims of the five-year plan included an expansion of Russo-Japanese trade, technical aid from Russia in the field of electrical output and the expansion of old enterprises and the construction of new ones.

The East and the West

The expansion of communism has been a remarkable phenomenon of the mid-twentieth century. Before the Second World War the only Communist country on the globe was the Soviet Union, containing 170,000,000 people within 8,000,000 square miles of territory. During the Second World War, Soviet Russia swallowed Esthonia, Latvia and Luthuania, together with parts of Poland, Finland, Czechoslovakia, Rumania, China and Japan. After the Second World War, Moscow-directed Communists took over all of Albania, Bulgaria, Czechoslovakia, Hungary, Poland, Rumania and Yugoslavia. Soviet troops occupied East Germany and East Austria. Later, Yugoslavia broke with Moscow, developing philosophies and plans of its own.

By 1950, Chinese Communists, backed by the Soviet Union, had taken over all the mainland of China. At the same time Communists in North Korea attacked South Korea on Moscow's advice or orders. Later, truce terms left North Korea in Communist hands. In 1951 Communist China seized Tibet, on the borders of India. Three years later, the Communists had taken North Vietnam, which was partitioned just north of the 17th Parallel, and the Communist threat hung over all of Southeast Asia. When Stalin died early in 1953 and Malenkov became his successor, some westerners hoped that the aggressive policy of the Kremlin might be relaxed, but subsequent events proved that there was to be no modification of Russia's imperialism.

The result of the rapid march of communism has been to net the Communists an additional 5,500,000 square miles of territory and nearly 600,000,000 people. In 1955 the Communist Empire included almost 14,000,000 square miles, one-fourth of the land surface of the world and 800,000,000 people, about a third of the population of the earth.

The first important step taken by the United States on behalf of the free nations for the "containment" of communism through military and economic aid was set forth in the declaration of President Truman to Congress in 1947. Then followed the Marshall Plan or the European Recovery Plan. A great step was taken when the North Atlantic Treaty Organization (NATO) was set up. The Supreme Headquarters

Allied Powers, Europe (SHAPE) was established near Paris for the purpose of carrying out the details of NATO. General Dwight D. Eisenhower became the first Supreme Commander. Each year, with the help of the United States, NATO nations appropriated billions of dollars for military and naval purposes.

In 1950, after the Korean War had begun, René Pleven, then French Premier, proposed the formation of a unified European army, including West German contingents, under a European Defense Minister. The French National Assembly approved the declaration but qualified its approval by stating that it remained opposed to a German army and General Staff. In 1952 a treaty, which was to run for fifty years was signed by France, Italy, West Germany and the Benelux countries: Belgium, Holland and Luxembourg. It set up an European Defense Community (EDC). Clauses in the treaty pointed to a European federation, a most significant step toward European consolidation. But signing the treaty was one thing and ratification by the various parlia-

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DARK THE NIGHT AND WILD THE STORM

mentary bodies was another. West Germany and the smaller states ratified the treaty, but France and Italy did not. In 1954 the French National Assembly, killed the EDC treaty, a blow at the defense of Europe. Late in the year, the ministers of the NATO powers met in Paris. Chancellor Adenauer was invited to the meeting as an observer. The ministers approved a protocol inviting West Germany to join NATO and adopted a resolution looking toward the rearmament of that country. Although many problems, such as the control of the Saar, had to be settled, NATO received new life.

The Department of State of the United States did everything possible to aid the consolidation of the European countries for the purpose of promoting confidence, peace and future security. When the Marshall Plan ended in 1951, it was succeeded by the Mutual Security Agency (MSA), which emphasized the building of the defensive strength of the free nations. The work of the Mutual Security Program was later carried on by the Foreign Operations Administration (FOA). As a by-product of the Marshall Plan, some restrictions on trade between European countries were scaled down and a European Payments Union furthered trade between countries by providing commercial credits.

In 1950 Robert Schuman, a French statesman with a German name, proposed a merger of the iron, steel and coal controls for western Europe, thus creating a market in a basic industry with 175,000,000 customers. France, Italy, West Germany and the Benelux countries accepted the plan, but Britain refrained. The European Coal-Steel Community was launched in 1952 when its Assembly met at Strasbourg, France. Among the actions taken was a vote to draft a charter for a European political confederation. The Schuman Plan started well, although confronted by a number of problems such as the elimination of barriers to free trade. By pooling their coal, iron and steel resources the six continental countries would be in a position to raise standards and also manufacture armaments for self defense.

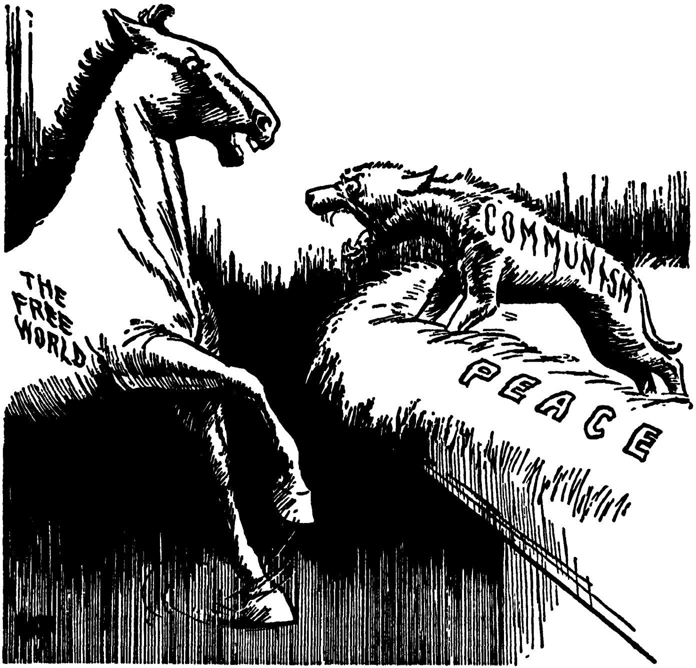
In connection with European defense plans, Yugoslavia signed a five-year treaty of "friendship and collaboration" with Greece and Turkey. Although Yugoslavia was not a member of NATO, Greece and Turkey were, but the document in effect established a defense force of about seventy divisions in association with the stategic planning of NATO. Turkey in turn signed a defense pact with Pakistan, the recipient of military supplies and economic aid from the United States. Proposals to set up a Middle East security network as part of NATO or separately were blocked by the bitter feud between Israel and the Arab countries.

Consideration by the free nations was given to southeastern Asia, imperilled by the onward sweep of communism. The idea of an association of nations, a counterpart of NATO reached the talking stage. A tripartite security treaty was made in 1951 between the United States, Australia and New Zealand (ANZUS). Defense arrangements were also made with the Philippines, South Korea and Japan. The ANZUS meeting held at Washington in 1953 set at rest any suspicion that the new Eisenhower administration was any less interested in the pact made between the United States, Australia and New Zealand, and the defense of other areas in that part of the world, than the Democrats had been. The next year the United States promoted and joined the Southeast Asia Treaty Organization, giving the Communists firm warning on the part of the eight signatories thereto.

From "The Philadelphia Evening Bulletin"

ARTIFICIAL RESPIRATION FAILS

As plans for preventing the expansion of communism in Europe and Asia were put into effect, critics pointed out that not enough was being done in the interests of the free nations of the Western Hemisphere. Incidents of Communist activity appeared from time to time in Latin America, despite the fact that most nations south of the border had outlawed the Communist party. Communist infiltration, however, was pointed up in 1954 by the overthrow of the regime of Jacobo Arbenz Guzman in Guatemala. Carlos Castillo Armas became the head of the new order in that country. As a result of the successful anti-Communist revolution in Guatemala, the United States issued a *White Paper* charging that the aims of the Soviets in all parts of Latin America were to promote anarchy, sabotage hemisphere defenses and destroy the inter-American system in order to divert attention from Communist maneuvers in Europe and Asia.



From "The New York Times"

THE DOG IN THE MANGER

During the period since the Second World War, inter-American understanding improved, partly because of the Communist menace. Several billions of dollars of private capital were invested in Latin American countries, capital that was needed to raise levels of living there. A growing volume of trade — especially the exchange of manufactured goods for sugar, coffee, oil, copper, tin — helped to bind together the American countries. The defense of the Panama Canal and the support of naval and air stations strengthened contacts between the republic of the New World. The Organization of American States, open to all sovereign states in the Western Hemisphere was adopted and signed at Bogota in 1948 and three years later the Charter went into effect when three-fourths of the signatory countries had ratified it. In 1954 the Tenth Inter-American Conference adopted a declaration that "the dominance or control of the political institutions of an American state by the international Communist movement . . . would constitute a threat to the sovereignty and political independence of the American states . . . and would call for consolidation and appropriate action in accordance with existing treaties." This agreement was a departure from the older idea of the Monroe Doctrine, for the United States was not to dominate, but instead the American nations would cooperate in their defense and in other matters.

Canada, of course, was linked to the United States by bonds of geography, economy and security. Increasing amounts of American capital were invested there and the manufacturing prosperity of the United States was reflected in that country. Canada, the world's largest producer of nickel, platium and asbestos, was developing her iron ores, as well as steel, uranium, oil, chemical, aircraft and other industries. The final acceptance of the St. Lawrence Seaway by the United States in 1954 insured economic expansion in that area of the world. As a leading member of NATO, Canada has done much to foster the expansion of world trade and to strengthen the economic bases of the free nations.

The Communist Problem Within the United States

The problem of dealing with Communists in America was a difficult one. Liberals objected to stern measures against those who were suspected or accused of Communist activities on the ground that the basic freedoms of Americans might be weakened or jeopardized. Many suspects, therefore, took refuge behind the Fifth Amendment and refused to answer questions. Opinion was divided as to what steps Congress should really take to meet the domestic menace of communism.

Disclosures by Congressional committees and former party members about Communists who had held high government positions shocked the nation. A number of labor unions were discovered to be Red-tinged and some of them took steps to eliminate Communists from their ranks. In 1949, eleven top Communist Party officials were accused of conspiracy and incitement to overthrow the government of the United States. After a fair, but boisterous trial, they were found guilty and punished. The sentences were upheld by the Supreme Court, as was the Smith Act, under which they were tried. Other leaders were indicted and found guilty.

Communist-led movements in the United States, as elsewhere, propagandized (1) the "peaceful intentions" of Russia, and (2) the "warmongering" of the United States. Speakers at the World Peace Conference, held at Vienna in 1951 denounced Washington and Wall Street, while they warned the people of Western Europe that they would be the chief sufferers in case of war. At a meeting of the Communist-led World Federation of Trade Unions in Berlin, speakers urged a systematic campaign of strikes and sabotage to destroy the rearmament program of the United States and Western Europe.

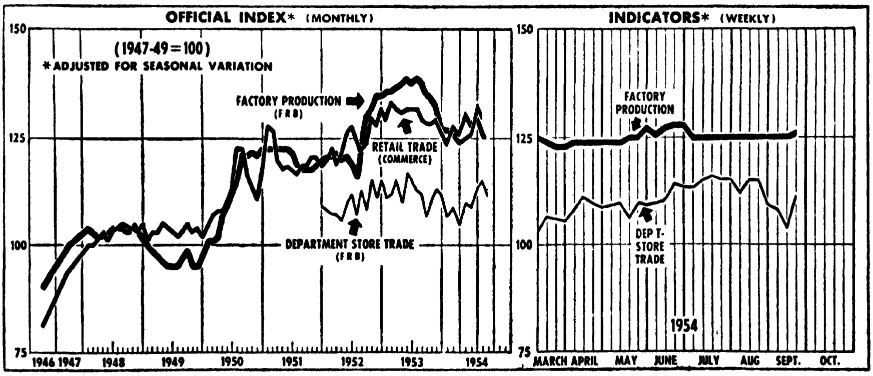
The publicity given by committees of Congress to their investigations by means of television, radio and the press did not bring any unity of public opinion as to what procedures should be followed. In fact disputes arose over methods of carrying on such investigations. Opposition by many to the methods used by Senator Joseph R. McCarthy, chairman of the Permanent Investigating Subcommittee of the Senate's Committee on Government Operation, complicated by his tangle with Army officials, resulted in a Senate investigation into his activities. McCarthy was "condemned" on two counts because of his "conduct toward two Senate committees and other senators." However, there was no disagreement by Americans on the necessity for resisting communism, but some questioned the methods used.

In 1954 the Communist Control Act was passed. Reiterating some of the language substantially similar to that already in the Smith Act of 1940 and the Internal Security Act of 1950, the new law asserted that the "Communist party of the United States . . . is in fact an instrumentality of a conspiracy to overthrow the government of the United States . . . therefore the Communist party should be outlawed." The party by this legislation, therefore, ceased to exist in the United States as a legal entity, it could not sue in the courts and it was forbidden to engage in corporate business activity. The law, however, included a clause to the effect that the party retained its legal status insofar as the Internal Security Act of 1950 was concerned, requiring it to register with the Department of Justice. A part of the act was directed at labor unions where Communist influence had taken hold.

American Business and Industry

The years immediately following the mid-century were prosperous ones, although in spite of sporadic government attempts to control prices and wages, the spiral of inflation continued. Annual increases of wages were permitted in many industries to prevent strikes threatened by union leaders. Dissatisfaction continued among many workers as prices of commodities increased and take-home pay was reduced by pay envelope deductions of taxes, social security payments, pension payments and union dues. In the nation's basic industries, the rounds of pay increases helped to meet the higher cost of living, but many "white collar workers" and others unaffiliated with unions got few pay raises and suffered as a result. At the beginning of the Eisenhower administration most economic controls were removed.

While the number of strikes totaled a few thousand each year, the most serious labor dispute of the period was the steel of 1952, carried on by the United Steelworkers (CIO). The strike had been postponed from time to time while the Wage Stabilization Board studied the case. The results, however, proved fruitless A strike set for April 9 was called off when President Truman seized and ran the steel industry. Two months later the United States Supreme Court held the government seizure of the steel mills to be invalid. Then a strike occurred which was terminated by an agreement for wage increases, while the steel companies received permission to raise their basic steel ceiling by $5.20 a ton. The strike was the longest and costliest ever carried on in steel history. About 17,000,000 tons of steel were lost and the dispute cost the workers $350,000,000 in wages. Moreover, Defense Secretary Lovett estimated that the dispute had interfered with the rearmament program. Among other difficult labor disputes of the period were those carried on by the Commercial Telegraphers Union, the Railroad Brotherhoods and the AFL International Council of Aluminum Workers.



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BUSINESS INDEX, 1946–1954

The year 1953 marked a high peak in American prosperity. Gross national product, which measures the total value of all goods and services produced in the United States, rose to a record-breaking level of $368,000,000,000, an increase of 5 per cent over the preceding year.

To be sure, this billion-dollar-a-day level had reached such a dizzy height partly because of the inflation of prices, but the economy was in high gear. Steel reached an all time production of 111,500,000 tons for the year, an increase of 20 per cent over the previous year, but by the end of 1953, production was declining as supply began to catch up with demand. The automobile industry enjoyed the second biggest year in its history when 6,150,000 new passenger cars were produced, exceeded only in its banner year — 1950 — by the number of cars manufactured and not by their total value. The demand for electric power and light continued to be staggering. Construction, both residential and industrial, maintained a high level. A new record was also made in employment, for the greatest number of people in American history were employed, the civilian force alone reaching 63,400,000. Corporation income was about $45,000,000,000, although the last quarter of 1953, showed a decline over each of the first three quarters.

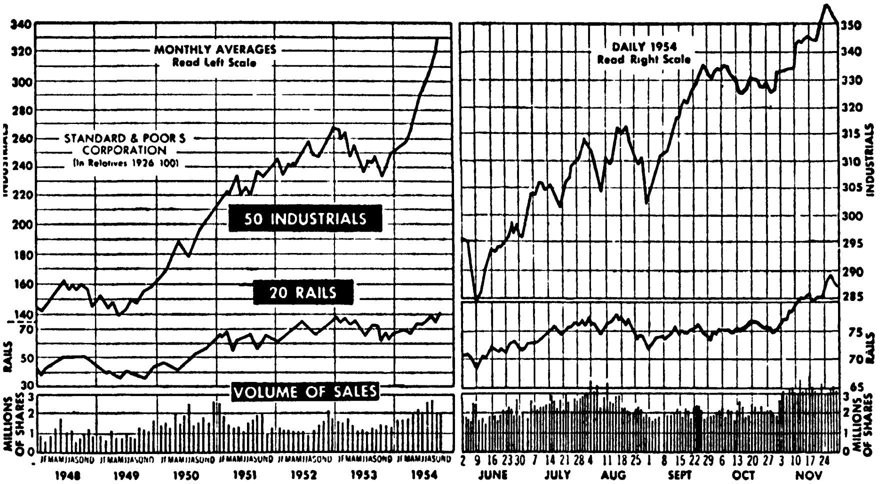
Signs in a number of phases of the American economy during the latter part of 1953 seemed to indicate that a top level of production had been reached. Prophets of doom appeared proclaiming a bleak outlook for the future. However, the recession of 1954 was not severe and the important point about business contraction was that it did not spiral. The contraction was apparently due mainly to two factors: (1) Business reduced its buying in order to work off some of its large inventories. (2) Defense spending was reduced. By the fall of the year confidence in recovery was widespread and was growing on a solid basis.

During the recession, factory and mining production dropped about 10 per cent, as did manufacturers' new orders. The automobile industry was hard hit, for factory sales of cars declined to about 25 per cent. Total farm income was down about 10 per cent. On the other hand, however, there were some strong factors in the economy such as building construction. Exports were up about 6 per cent and the stock market, although selective in its securities, reached new high levels.

Estimates of unemployment varied from 2 to 5 per cent of the total number of workers. The ratio was higher than that in the brief 1949 recession, but it didn't cause the nation so much concern. Unemployment was not spread evenly. There were pockets where the ratio ran well above the national average, such as the coal mining areas of Pennsylvania, eastern Kentucky and West Virginia and also textile towns of the North, although problems in such areas were chronic at least in large part.

The government fostered a mood of confidence through its handling of money and tax concessions. Credit was easier to get as the Federal

Reserve Banks reduced discount rates. Veterans could buy houses without paying any cash down. Non-veterans were given the aid of smaller down payments and longer periods to pay as a result of a new housing law. Business was given a lift through lower interest costs for long term borrowing. New rules for tax deductions on plant and equipment released large amounts of corporate funds for possible investment.



From "Financial World"

THE STOCK MARKET

Tax deductions and credits for loss years were liberalized. And more defense work was channeled into areas where unemployment was severe.

Organized labor continued to make gains. Its demands for higher wages and increased benefits were met, at least in part, even during the recession. The AFL, made up of 110 national and international unions, with approximately 55,000 locals claimed a membership of 8,000,000 members. Following the death of William Green in 1952, George Meany was selected president. The CIO proclaimed a membership of approximately 6,000,000. Its president, Philip Murray, died in 1952 and was succeeded by Walter P. Reuther. In addition to the two great American labor bodies, about 2,500,000 workers were organized in sixty-nine independent unions, including such organizations as the Railroad Brotherhoods and the United Mine Workers under the presidency of the militant John L. Lewis.

The labor supply was increased under laws passed by Congress for the admittance of displaced persons in addition to quota immigrants. In 1952, over the veto of President Truman, Congress passed the

McCarran-Walter Immigration and Nationality Act, parts of which were controversial. The measure ended all racial bars on immigrants from all foreign countries, thus permitting Asians, who had been denied legal entry into the country by earlier immigration laws, to enter the country in small numbers. It provided that such aliens could become citizens. There was much opposition to the law partly because it appeared to discriminate against southern and eastern European countries.

Agriculture and Its Problems

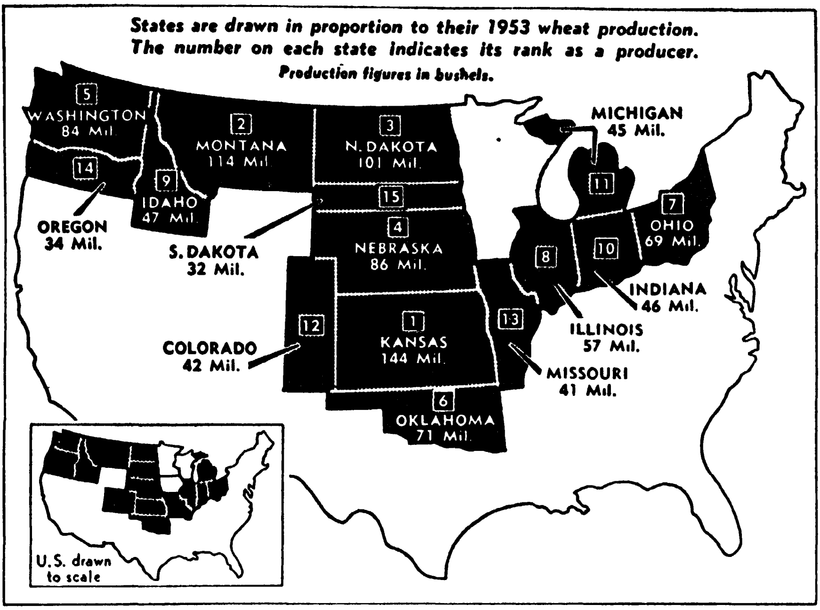
Prosperity during the Second World War changed the situation of the farmer. His income rose rapidly in spite of government controls, although his expenses increased only to about two-thirds of his income. Farmlands and stock mounted in value. Farm mortgages were liquidated and farms operated by tenants dropped from 2,361 in 1940 to 1,444 in 1950. Farm tenancy was reduced to 27 per cent of the total number of farms. Yet industrial labor was better off than farm labor, even though the condition of the farmer had improved. Controls over agricultural products were removed late in 1945, with the result that prices of farm products generally increased about 25 per cent.

During and after the war, output per acre of wheat, corn, tobacco and other products increased rapidly. Production was high and within a short period of time swelling surpluses of key agricultural commodities were taken off the market by the federal government under price support programs which harassed statesmen and politicians. Naturally the problem was a most controversial one.

Farm prices advanced almost 30 per cent between 1946 and 1951, when they reached their peak. The increase in retail food was greater, for between 1946 and 1952 the increase was 45 per cent. Since 1951 peak prices received by farmers dropped 20 per cent, although retail prices of food almost held to the high level of 1952. Although farm prices declined, none of the lower prices were passed on to the consumer. The chief reason for this situation was due to the tendency to increase marketing and processing charges, with the result that the consumer did not benefit. Out of each dollar spent by the American housewife for domestically-produced food, fifty-six cents went for marketing, processing and transportation charges.

Although in 1954 the average farmer found that his income bought much less than in 1946, if he owned or rented his farm, he was much better off than before the Second World War. His gain in real income over the pre-war level — reflected in better living standards —

THE WHEAT BELT

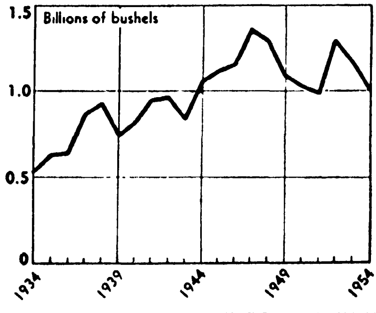


States are drawn in proportion to their 1953 wheat production. The number on each state indicates its rank as a producer.

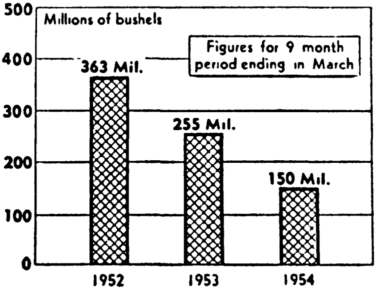
Production figures in bushels.

THE SURPLUS PROBLEM

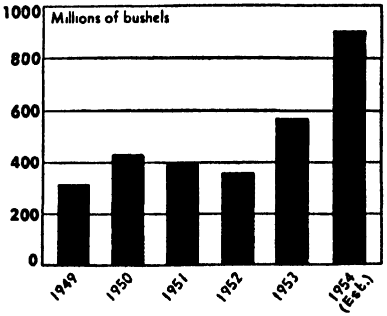
1. Wheat production has remained at a high level since World War II......



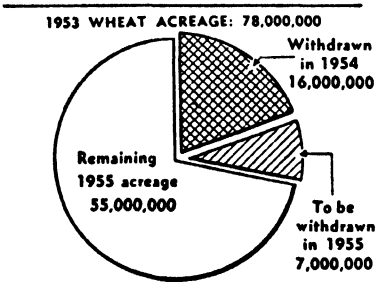
2. But the export market has declined sharply in the past few years......



3. And the Government has been stuck with mounting wheat surpluses......



4. So the Secretary of Agriculture is cutting back the total wheat acreage.



From "The New York Times"

was about 28 per cent, even after allowing for the squeeze of recent years. But farmers noticed that, comparatively, other groups were much better off than they were.

The Eisenhower administration promised a "solid" agricultural plan that would include the principle of price supports and that would also build markets, safeguard farm income and protect consumers. The President stated that aside from the drought in some critical areas of the Great Plains states, agricultural problems stemmed from war-expanded production that exceeded market demands and reserve requirements.

As a part of the new program, the passage of the farm bill in 1954 was a triumph for the Republican administration. It introduced again a system of flexible price supports. Until 1942 such supports were established farm policy. Before the Second World War, the Secretary of Agriculture could determine at his own discretion each year what percentage of "parity" should be regarded as a reasonable "floor" for each of the covered farm commodities. He was limited only by a minimum of 52 per cent and a maximum of 75 per cent. In selecting the support level he was guided chiefly by the supply situation in each particular commodity. During the Second World War, like American industry, American agriculture was faced with an unprecedented production challenge, for the needs of the Allies of the United States, as well as domestic needs and those of our armed forces had to be met. In order to stimulate agricultural output the government passed emergency legislation which, among other things, set 90 per cent of parity as the fixed floor under basic agricultural commodities. But the fixed supports were continued for years after the war was over. The powerful farm bloc succeeded in postponing any change in the fixed support.

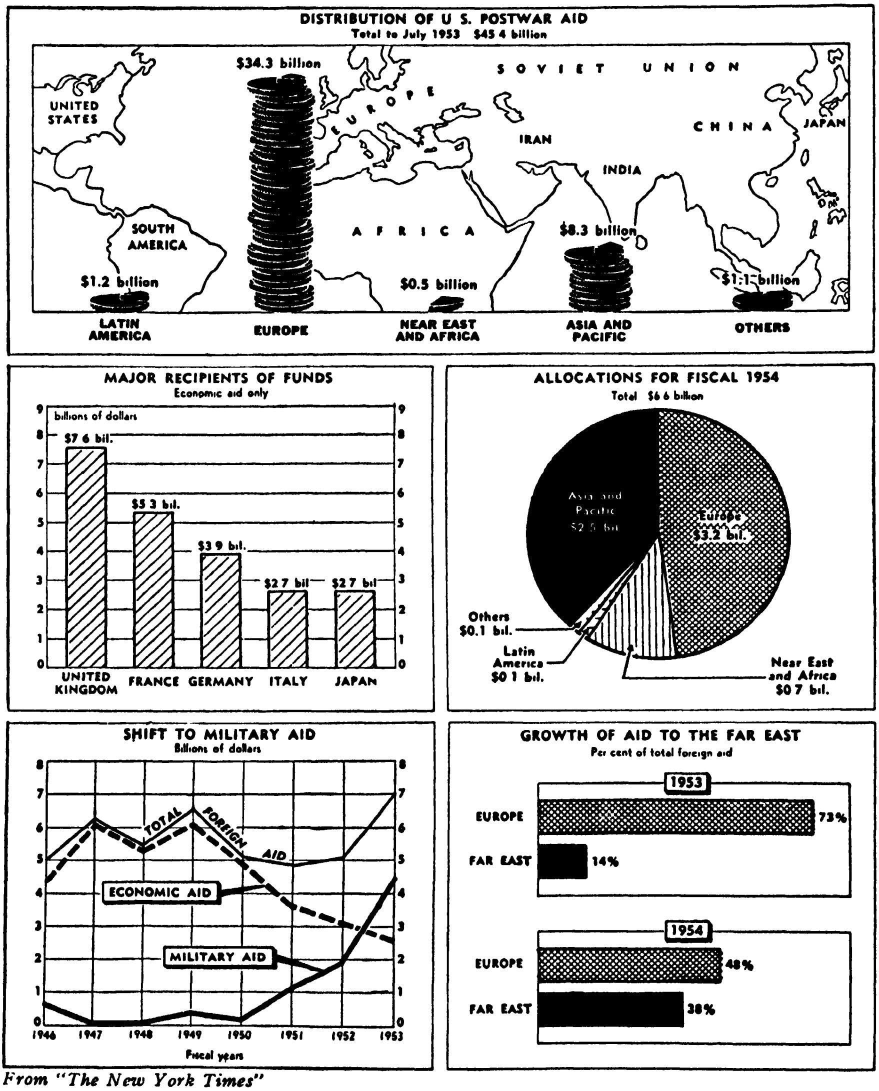
In 1954 the new farm law cut away rigid price controls from five basic crops — wheat, corn, cotton, rice and peanuts. These crops would now get government flexible props of from 82.5 per cent to 90 per cent of parity. Opponents and proponents of the law agreed that the measure would have far-reaching effects on agriculture, but they differed on what those effects would be. Supporters of the new law claimed it would cut down surpluses, lead farmers toward freedom from government control, balance production and create a free, sound market for farmers. Those who opposed proclaimed that the new plan would plunge declining farm income to new lows and might touch off a depression that would spread to the cities.

Taxation, the National Debt and Social Security

In 1954 an overhaul of federal tax laws was completed. Removal

of many inequities to business and individuals provided relief of more than a billion dollars the first year and double that amount in future years. The measure was designed to encourage business expansion, employment and payrolls while removing long-standing evils in the taxation of individuals as well as corporations.

The thousand-page tax bill, which President Eisenhower declared was the cornerstone of his legislative program, stressed encouragement to private enterprise. Instead of a weapon with which to punish busi-



From "The New York Times"

AMERICAN AID TO FOREIGN COUNTRIES

ness, taxes were to be used as an instrument to stimulate the economic life of the country. Business was given easier methods of computing depreciation and double taxation of stock dividends was modified. For individuals, tax savings were provided on such items as estates, sick leave, dependents and installment buying.

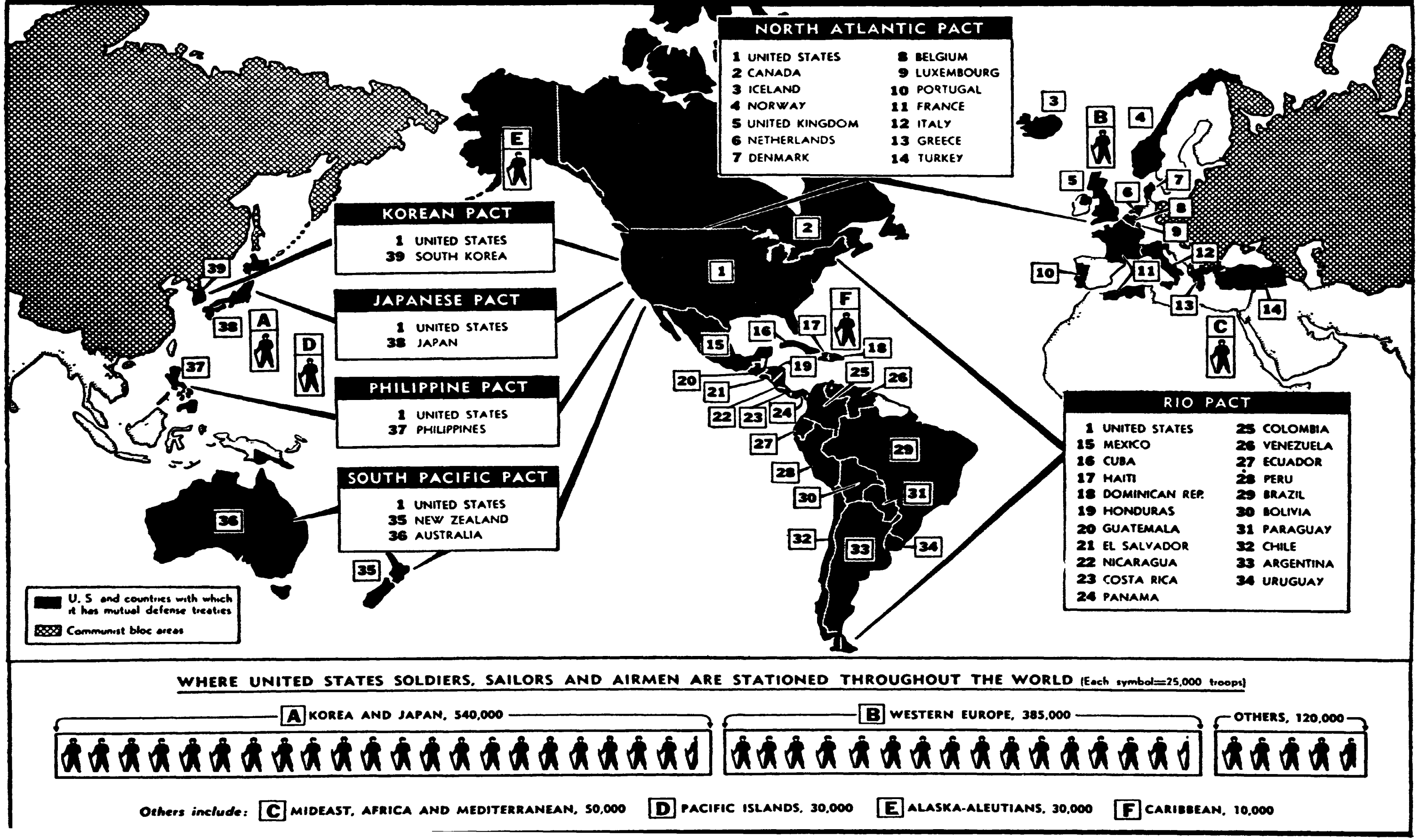
Although the tax bill provided relief to taxpayers, deficit government financing continued. Federal spending was cut but remained high. Defense costs were the real obstacle to a balanced budget. A beginning was made to bring military expenses in line. Defense strategy shifted somewhat to an atomic basic, although the draft remained an important factor in the life of every young man. More than $3,000,000,000 were voted to carry the foreign aid program through the fiscal year. Although the gap between government income and spending was narrowed, a balanced budget was a goal for the future.

As a result of continued vast government expenditures Congress raised the ceiling of the federal debt from $275,000,000,000 to $281,000,000,000. Until the First World War it required a specific act of Congress, which identified the purpose of the outlay, to create national debt. When that conflict began the interest-bearing debt of the United States stood at less than $1,000,000,000. It climbed to 49,000,000,000 in 1940. In 1946, it was set at 275,000,000,000, where it remained until 1954, when an increase was authorized. On signing the measure, President Eisenhower restated the dedication of his administration to a policy of economy and continued efforts to bring the federal budget into balance.

A most important action of the Eisenhower administration was the expansion of the Social Security system. The law of 1954 provided higher benefits and taxes under the old age and survivors insurance system, extension of coverage to about 10,000,000 workers (making 58,000,000 altogether), and other changes. Beginning on January 1, 1955, the Social Security tax was increased. Instead of applying to $3,600 of earnings, under the new law it applied to $4,200 and the rate was 2 per cent. At the age of sixty-five an individual earning the maximum amount for the required period of time was eligible to receive a top of pension of $108.50 a month. His wife also on reaching the age of sixty-five would receive one-half the top pension, making a total for the two of $162.80 a month. The law provided increases for those already pensioned, for widows sixty-five or over, who had not previously qualified, and others.

The new law meant that for the first time the United States would have a nearly universal system of social insurance. The expanded system provided security for a more comfortable old age for millions

DEFENSE TREATY COMMITMENTS IN 1954



of retiring workers and their wives in the years ahead. In the case of a number of groups not covered by the Social Security system, many were protected by retirement systems.

The Problem of the Use of Atomic Energy

Although the nation had developed a program of security from want in old age, Americans were seriously concerned with the fear of the use of deadly atomic weapons in war. The atomic bomb had been created under military supervision, but after the war, scientists and others brought pressure to place the use of atomic energy under civilian control. The Atomic Energy Act of 1946 set up an Atomic Energy Commission, U.S. It was concerned with the production of atomic weapons together with the development of atomic-powered engines for planes and submarines and the use of radio-active isotypes in medicine. Public concern over the new bomb grew, especially when it became known that Russian scientists were making similar experiments at top speed and that Communist spies were getting secret information from the United States, Britain and elsewhere for Moscow. Russia began to wage an atomic race with the United States.

When it became known that Russia had exploded the atom bomb, President Truman ordered the development of the hydrogen superbomb in 1950. Two years later the Atomic Energy Commission announced that the terrible instrument of destruction had been completed. Eye witnesses told of experimental blasts in the Pacific. In 1953 Premier Malenkov reported to the Supreme Soviet in Moscow that the United States no longer had a monopoly on the hydrogen bomb, but said that Soviet policy called for peaceful settlement of international differences.

Meanwhile, attempts had been made in the UN for the international control of atomic energy. The Soviet government opposed the American plan to set up an International Atomic Authority, which would control uranium and all raw material involved and would control, license and inspect all atomic activities, as well as foster the beneficial use of atomic energy. Russia proposed instead, the outlawing of the atomic bomb by treaty and the immediate destruction of all existing bombs. It opposed the inspection plan and demanded that the veto privilege be retained on questions of atomic energy. Thus international control was blocked.

In 1954, after a heated fight, Congress passed a bill which opened the door for the development of a private power atomic industry within the United States. It was declared that the law would speed the time when atomic energy would be "wholly devoted to peaceful purposes." The measure permitted the Atomic Energy Commission (AEC) to grant forty-year renewable licenses for private industry to operate atomic facilities and handle fissionable materials. With the approval of Congress, the AEC could build power plants for experimental purposes. Cooperatives and public-owned utilities were to receive preference in buying such power. The law authorized the President to give friendly nations secret details regarding atomic weapons. Subject to review by Congress the President could also negotiate to carry out his plan for a global A-pool to help backward nations and to grant friendly powers information on producing civilian atomic power. The United States, therefore, has taken the lead in promoting the peaceful uses of atomic energy. The law may be a step in the solution of the many problems between the East and the West and it may prove to be a factor in helping to build an enduring peace.

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SUGGESTIONS FOR FURTHER READING

The purpose of this bibliography is to suggest readings that will supplement and amplify the text. Various sources of information are presented in order to aid those who desire to study in some detail various aspects of the field. No extensive or comprehensive treatment of the economic history of the United States has yet appeared and much more research will be necessary before this is achieved. In process of publication by Rinehart and Company is a nine-volume series, "The Economic History of the United States," of which several volumes have appeared (1945-). The growing stress on the economic aspects of American history during the past generation has resulted in a wealth of material in various forms. The following lists are guides to further reading and study.

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